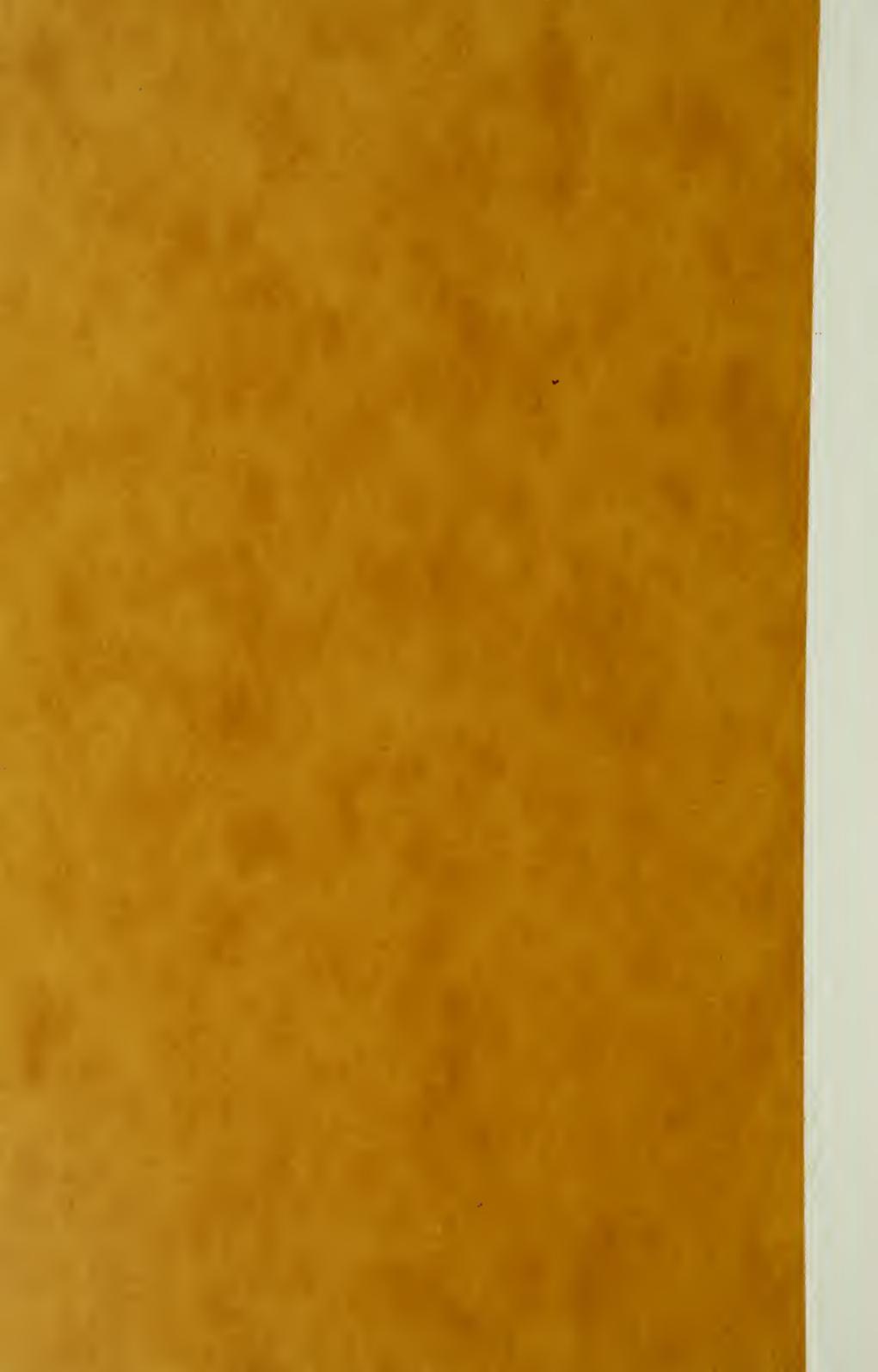


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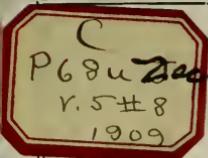
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AUGUST, 1909

UNIVERSITY BULLETIN

Vol. 5.

No. 8



UNIVERSITY OF ILLINOIS
(SUPPLEMENT.)

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UNIVERSITY OF ILLINOIS

University of Pittsburgh

EVENING SCHOOL OF ECONOMICS,
ACCOUNTS AND FINANCE.

ANNOUNCEMENT 1909—1910

This volume is bound without _____

_____ 1913/14, 1916/17-1920/21 _____

which ~~is~~/are unavailable.

AUGUST, 1909

UNIVERSITY BULLETIN

Vol. 5.

No. 8

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PUBLISHED MONTHLY BY THE UNIVERSITY OF PITTSBURGH.
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UNDER THE ACT OF CONGRESS OF JULY 16, 1894.

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1909/10-
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EVENING SCHOOL OF ECONOMICS, ACCOUNTS AND FINANCE. CALENDAR 1909-1910

1909

Sept. 27.....Monday.....First Semester begins.
Nov. 25, 26.....Thursday, Friday...Thanksgiving recess.
Recess from December 24 to January 2, both inclusive.

1910

Jan. 24, 29.....Monday to Saturday.Semester examinations.
Jan. 31.....Monday.....Second semester begins.
Mar. 25.....Friday.....Holiday—Good Friday.
May 30-June 4....Monday to Saturday.Final examinations.
June 12.....Sunday.....Baccalaureate Sermon.
June 15.....Wednesday.....Commencement.

FACULTY

SAMUEL BLACK McCORMICK, D.D., LL.D., *Chancellor of the University.*

JOSEPH ALBERT BECK, B.S., LL.B., Director, and Professor of Economics and Finance.

JOHN THORN HOLDSWORTH, PH.D., Assistant Professor of Economics.

FRANK WILBUR MAIN, C.P.A., of New York, Instructor in Accounting.

JOSEPH ROYER CONRAD, Esq., Instructor in Law and Insurance.

For the announcement of the Evening School of Economics, Accounts, and Finance or other information apply to . . . S. B. Linhart, Secretary of the University, Grant Boulevard.

Students may register at the Secretary's office in advance or at the time of beginning their work.

GENERAL STATEMENT

The Evening School of Economics, Accounts, and Finance of the University of Pittsburgh was founded in the year 1908 in response to the widespread demand from energetic and ambitious men for University instruction helpful in the business and industrial world. For those men who are able to take a college course, the University offers the four years' Course in Economics and Political Science leading to the Degree of Bachelor of Science. The Evening School meets the needs of those men who are unable to take a college course, but who realize the importance and necessity of education in order to increase their efficiency. The School also meets the needs of those who desire to supplement their college training by a study of the organization and administration of business.

The courses which are offered are distinctly practical. They are intended to increase efficiency by giving breadth of view, grasp of principles, and increased power to reason. *And in addition* the work is so specialized as to be an indispensable training in each student's particular line of work.

In no sense are these courses a duplication of the work offered by high schools, preparatory schools, or University extension lectures, but are similar to courses offered in connection with the regular work of the University, and are intended for students who wish to do earnest work.

The purpose of this School is to train men for

Banking

Accounting

Insurance

Manufacturing Management

Mercantile Business

Stock, Bond, and Produce Brokerage

Real Estate Brokerage.

Railroad Management

ENTRANCE REQUIREMENTS

The qualifications of each applicant will be passed upon separately. In general an applicant for a certificate or diploma of proficiency should have as his qualifications the equivalent of a high school education. If such an applicant cannot present these qualifications, he may be admitted as a special student, and on the satisfactory completion of one year's work may be admitted to regular standing.

REGULAR STUDENTS

A regular student will register for four courses each year for three years, one of which courses will be each year the course in Business Administration. Upon the satisfactory completion of twelve courses a certificate of proficiency in the nature of a diploma will be granted, provided that credit shall have been secured for the four courses: General Economics, Accounting, Business Law I. and II.

SPECIAL STUDENTS

Persons who wish to register for less work than the regularly prescribed course, and who meet the requirements for the course they desire to take, may be admitted to certain courses in the discretion of the Faculty. Those who decide later to become candidates for the Certificate of Proficiency will receive credit for whatever work they have done as special students.

TUITION

The annual tuition for four courses is \$50.00, payable in advance, one-half at the beginning of each semester.

The fee for a special student for one course is \$20.00, payable in advance, one-half at the beginning of each semester.

METHOD OF INSTRUCTION

Each course will be given one evening a week from 7:45 to 9:45 P. M. for thirty-six weeks.

The method of instruction will vary somewhat with each course, but, in general, each course will be in large part a lecture course with such quizzes and reports as are found desirable. Effort will be made to use some recognized treatise as a foundation for the work of the course and when that is not possible, synopses of the lectures will be furnished the students at the cost price thereof. Without work outside of the classroom, it will be impossible for a student to satisfactorily do the work of a course.

COURSE FOR THE AMERICAN INSTITUTE OF BANKING

For the past two years the University has given in connection with the Evening School a course in Economics and Banking for the Pittsburgh Chapter of the American Institute of Banking. During the coming year a course will be given in Commercial and Banking Law. In this course there will be included such parts of the courses in Business Law as are particularly important to men actively engaged in banking.

This course is open only to members of the American Institute of Banking and will be given in the lecture room of the Institute. The work done will be of the same character as the other courses given in the Evening School, except that the course will be given every other week instead of every week. Those men satisfactorily completing the work will be given University credit therefor, which will be useful to them in case they take other courses in the Evening School with the intention of completing the three year's course.

ACCOUNTING COURSES

These courses are intended primarily for two classes of students:

1. Those who expect to practice Accounting as a profession and are looking forward to taking the State Certified Public Accountant Examinations.
2. Those who need some knowledge of Accounting in connection with their business or employment, such as factory and mercantile managers, credit men, insurance men, head bookkeepers, railroad men, etc.

The applicant for these courses must be familiar with the different accounts in use and the principles of double entry bookkeeping, the fundamental principles of debits and credits, the closing of books, the opening of a simple Profit and Loss Account and the adjustment of the several accounts.

For those who have not had sufficient training or experience to take up the university work in Accounting, a preliminary course in Bookkeeping has been established, for which work no credit will be given.

COURSES

REQUIRED:

General Economics	Monday
Accounting I. Principles of Accounting	Tuesday
Business Law I.	Thursday
Business Law II.	Monday

ELECTIVE:

Business Administration	Friday
Money and Banking	Tuesday
Insurance I	Wednesday
Insurance II (not offered 1909-1910)	
Accounting II Practical Accounting	Thursday
Accounting III Practical Problems and Auditing (not offered 1909-1910)	
Accounting IV Cost Systems (not offered 1909-1910)	
Corporation Finance	Thursday
Investments (not offered 1909-1910)	
Industrial Management	Thursday
Real Estate	Tuesday
Commerce and Modern Industries	Thursday
Transportation	Wednesday
Social and Political Problems	Monday

DESCRIPTION OF COURSES

GENERAL ECONOMICS

MR. BECK

This course will include a consideration of the fundamental concepts of political economy which are pre-requisite to any advanced work in economics. The nature of the science of political economy. Definitions of the terms. The theory of political economy.

The present-day problems of economics will be briefly considered, and the application of the theory to the settlement of these problems will be shown. The problems of wages, trusts and monopolies, interest, taxation, railroads, and social reform legislation.

BUSINESS LAW I. AND II.

MR. CONRAD

These courses will give the student a general understanding of the elementary principles of the Law and a detailed knowledge of those branches of it which have most frequent application in business life.

The first course will include the law of CONTRACTS, their formation, construction, operation, enforcement and manner of discharge; SALES of PERSONAL PROPERTY; BILLS and NOTES with special attention to the Uniform Negotiable Instrument Act as adopted in Pennsylvania; AGENCY; BANKRUPTCY, and INSOLVENCY.

The second courses will deal with the law of PERSONS, PARTNERSHIPS; CORPORATIONS, REAL PROPERTY, LANDLORD and TENANT, SURETYSHIP, GUARANTYSHIP, and DECEDEENTS' ESTATES.

In addition to the use of some recognized text book, this course will include discussions of adjudicated cases, laying down, applying and illustrating the principles involved.

PRINCIPLES OF ACCOUNTING

ACCOUNTING I.

MR. MAIN

Without considering elementary bookkeeping, the student will be given a thorough drill in the Theory of Accounts, the course consisting of Lectures, quizzes and much practical, illustrative work.

Studies will be made of the changes from single to double entry, from sole proprietor to partnership, and from partnership to corporation. Special studies will also be made of the inventory, the classification of accounts, columnar books, controlling accounts and stock records. Consideration will also be given to the preparation of Balance Sheets, Trading, Operating and Profit and Loss Accounts, and general accounting procedure.

During the later part of the year, Insolvency and Fiduciary Accounts will be taken up, special attention being given to the preparation of the Statement of Affairs, the Deficiency Accounts, and Realization and Liquidation, and Trustees' Cash Accounts.

MONEY AND BANKING

DR. HOLDSWORTH

The nature of money, and its relation to credit and capital. The factors which influence the rate of interest, and the forces operating upon prices. The history of monetary experiences in the United States.

The organization and management of banks and trust companies under federal and state laws. How loanable funds are accumulated and employed. The management of deposits, reserves, clearings, and collections. Foreign exchange. The development of banking in the United States. Proposed currency reforms. Foreign banking systems.

BUSINESS ADMINISTRATION

This course will consist of lectures by eminent business and professional men actively engaged in the various lines of business, which are studied in detail in the several courses offered. The topics will be selected with a view to securing the services of the most able men in Pittsburgh, and at the same time to include the treatment of many different industries.

These lectures will give the student an insight into the methods employed in the management and financing of large enterprises and will make tangible and real many of the principles studied in the various courses, as well as act as a stimulus to greater endeavor.

This course will be supplemented by a limited amount of class work consisting largely of quizzes, special investigations and reports.

The list of topics and lectures will be announced later.

INSURANCE I. II.

MR. CONRAD

These courses are designed to give the student a practical knowledge of the origin, development, economic importance and principles underlying insurance.

The first course extends to and embraces the fundamental principles common to all our present systems, including the mathematical problems involved, the work of the actuary, the valuation of policies, the calculation of reserves, the determination of rates and premiums, the several kind and types of policies, their legal effect, interpretation and construction; the investment of insurance funds; state regulation of insurance, etc.

The second course is a study of the features peculiar to the various branches of insurance, Life, Fire, Accident, Fraternal, Title, Plate Glass, Old Age and Permanent Disability, etc.; the application of general principles applicable to them; the duties of the various officers and employes, such as inspectors, medical examiners, general and special agents, and executors. The legal effect of their acts upon the rights and obligations of the parties to a policy.

These courses will be supplemented by lectures upon various phases of insurance by men prominent in the insurance world.

PRACTICAL ACCOUNTING

ACCOUNTING II.

MR. MAIN

The purpose of this course is to apply the principles learned in Accounting I to particular lines of businesses. To this end the Accounting Systems and Methods in use in various classes of businesses will be specifically studied and modern scientific labor saving methods contrasted with the cumbersome antiquated systems in use in many business houses.

The Accounts of Banks, Insurance Companies, Electric Lighting Companies, and Railroads will be taken up, together with those of other lines.

The course will consist of Lectures, Class Drills and much practical work.

ACCOUNTING III. PRACTICAL PROBLEMS AND AUDITING

MR. MAIN

This course consists of advanced work and is intended for those planning on taking the State Examinations for the degree of Certified Public Accountant, or in other words, for those expecting to practice Accounting as a Profession.

A thorough drill will be given in the consideration and analysis of Practical Problems, the Questions being largely taken from the Questions as given at the Examinations of the different States, and much practical work will be required.

The subject of Auditing will also receive much attention, the purposes of the Audit, the scope, the methods of procedure and the elements which make for success or failure in the conduct of the same being particularly considered. Drills in the preparation of clear and lucid reports, statements and schedules will be included in this work.

This course will also include Lectures on the History of Accounting and will be supplemented by lectures by Certified Public Accountants and other Accounting Specialists.

ACCOUNTING IV. COST SYSTEMS

MR. MAIN

This course will include both the Theory of Cost, Accounting and its practical application.

Under the head of the Theory will be given Lectures on the basic principles of Cost Accounting, on its Advantages in Determination of Prices and the Reduction of Production Costs, on the Treatment of Overhead Expenses, on the Preparation of Comparative effective financial statements, and on the labor saving devices and methods now in use.

In connection with these Lectures the Cost Systems of typical manufacturing plants will be taken up and thoroughly explained, practical illustrative work being required at the same time of the students to the end that the important underlying principles may be thoroughly grasped and understood.

This Course will also be supplemented with talks and Lectures by Factory Experts, who will take up particular phases of Cost Accounting for the benefit of the students.

CORPORATION FINANCE

DR. HOLDSWORTH

Types of business corporations. The financial organization and management of corporations. The promoter and the under-writing syndicate. The disposition of gross earnings, corporate leases and mortgages. Insolvency, receiverships, and re-organizations.

INVESTMENTS

DR. HOLDSWORTH

The analysis of typical corporation securities. The nature and value of government and municipal bonds. The general characteristics of railway and industrial stock and bonds. A study of the fluctuations in bond and stock prices over a period of years to get an idea of the influences acting upon security values. The nature and processes of investment as carried on in stock and produce markets.

INDUSTRIAL MANAGEMENT

DR. HOLDSWORTH

A study of the leading American industries, with special stress upon those centered at Pittsburgh. Sources and supply of raw material. Factors affecting the location of industry. Sources and application of power.

Manufacturing methods and factors affecting the cost of production. Advantages of various methods of business organization and management. Cost keeping and pay systems. Markets and methods of distribution. Organization and management of the selling force.

REAL ESTATE

A study of realty values and the law and management of real property. Brokers, their duties and obligations, Essentials of covenants, of deeds. Principles of the law of mortgages, and of landlord and tenant. Title insurance, taxes, and assessments. The valuation, proper location and management of office and apartment house buildings. The drawing of deeds, mortgages and leases.

COMMERCE AND MODERN INDUSTRIES

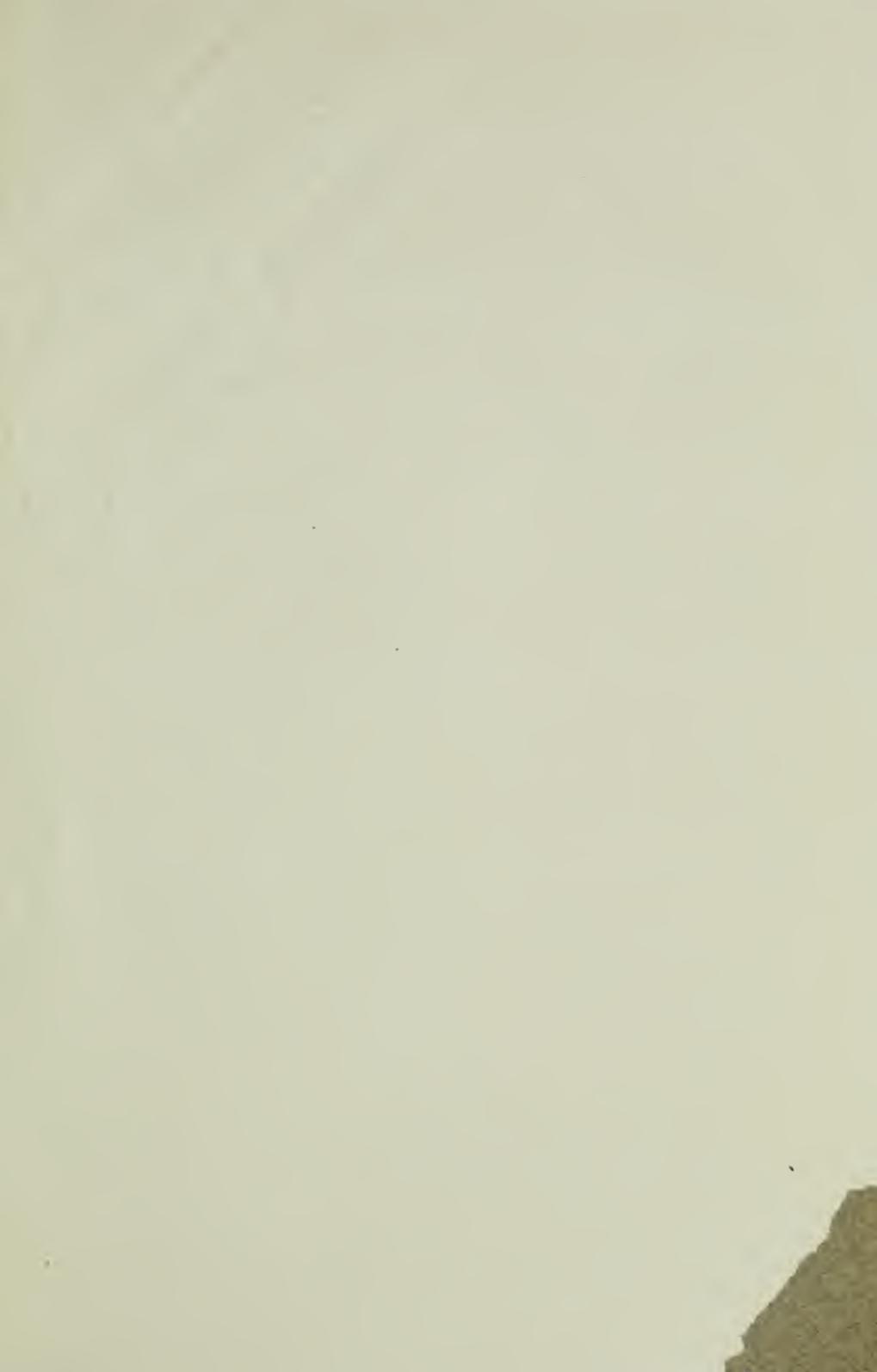
The commerce of the United States with foreign nations. The coasting trade and the internal trade. The trade between the United States and the Western Hemisphere particularly considered. A study of the leading industries of the United States, laying emphasis upon the industries of the Pittsburgh district.

TRANSPORTATION

A study of the Railroads of the United States. Their present ownership and control. Rate-making in theory and practice. Federal and state supervision. The Interstate Commerce Act and its amendments. Government ownership. Ocean transportation.

SOCIAL AND POLITICAL PROBLEMS

The family, its importance, organization, and disruption. The liquor question; its relation to society and the state. Charities; treatment of poverty, delinquency and degeneracy. Woman and child labor. Care of the unemployed. Housing the working population. Factory inspection. Immigration. Socialism. Social reforms.



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VOL. 6.

MAY, 1910

No. 5

University of Pittsburgh

BULLETIN

THE LIBRARY

OF THE

UNIVERSITY OF ILLINOIS

SCHOOL OF ECONOMICS

ANNOUNCEMENT 1910-1911



PUBLISHED MONTHLY BY THE UNIVERSITY OF PITTSBURGH.
ENTERED AUGUST 20, 1908, AT ALLEGHENY, PA., AS SECOND-
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University of Pittsburgh

BULLETIN

VOLUME 6

MAY 1910

NUMBER 5

SCHOOL OF
ECONOMICS

SCHOOL OF ECONOMICS

CALENDAR 1910-1911

September 22-24	Thursday to Saturday—Entrance Examinations and Registration.
September 26	Monday—Fall Term begins.
November 24-26	Thanksgiving recess, Thursday to Saturday.
December 17	Saturday—Fall Term ends.
Term Vacation from Monday, December 19, to Monday, January 2, 1911.	
January 11	
January 2	Monday—Winter Term begins.
February 9	Thursday—Day of Prayer for Colleges.
February 22	Wednesday—Washington's Birthday, holiday.
March 25	Saturday—Winter Term ends.
March 27	Monday—Spring vacation of one week begins.
April 3	Monday—Spring Term begins.
April 14	Good Friday, holiday.
June 8	Thursday, 8 p.m.—Chancellor's Reception.
June 11	Sunday—Baccalaureate Sermon.
June 14	Wednesday—Commencement.
June 15-17	Thursday to Saturday—Entrance Examinations and Registration.
June 17	Saturday—Spring Term ends.

OFFICES AND OFFICE HOURS

Office, School of Mines Building, Grant Boulevard—Consultation Hours:
9 a.m. to 12:30 p.m.

General Office, School of Mines Building; Telephone Schenley 2500.

For catalogs and other information, address the Secretary of the University, Grant Boulevard.

FACULTY

SAMUEL BLACK McCORMICK, D.D., LL.D., CHANCELLOR.

JOHN THOM HOLDSWORTH, Ph.D., Professor of Finance and Economics.

JOSEPH ALBERT BECK, B.S., LL.B., Professor of Political Economy.

GEORGE ALEXANDER McKALLIP DYESS, A.M., Ph.D., Professor of History and Political Science.

JOSEPH ROYER CONRAD, Instructor in Law and Insurance.

RUFUS DANIEL SMITH, A.B., Instructor in Sociology.

FRANK WILBUR MAIN, C.P.A., Lecturer in Accounting.

SAMUEL BLACK LINHART, A.M., D.D., Professor of Ethics.

FRANCIS CLIFFORD PHILLIPS, A.M., Ph.D., Professor of Chemistry.

FERDINAND BERGER, A.M., Professor of the German Language and Literature.

JOHN COLVIN FETTERMANN, Ph.M., Professor of Biology.

JESSE HAYES WHITE, Ph.D., Professor of Psychology and Education.

WILL GRANT CHAMBERS, M.S., A.M., Professor of Education.

LINCOLN ROBINSON GIBBS, A.M., Professor of English.

PHILIP WARNER HARRY, Ph.D., Professor of Romance Languages.

—————, Instructor in Public Speaking.

ANDREW BENNETT WALLGREN, M.D., Athletic Director.

GENERAL STATEMENT

The School of Economics was established to provide professional training for business careers. Our universities and colleges are providing increasingly thorough preparation for those who purpose entering such professions as law, medicine, engineering, teaching and the ministry. Modern conditions demand of the young man who intends to engage in commercial, industrial and financial pursuits equally thorough training and preparation. The corporate organization of modern business demands broadly-trained officers and managers. The young man who starts with a disciplined and well-informed mind, a general knowledge of the fundamental principles of business, and a special knowledge of certain branches of business, will more readily gain promotion from routine work to positions of trust and responsibility. In the public service, too, there is an increasing demand for men who combine technical knowledge with broad vision and grasp of business principles.

The School of Economics aims to furnish mental discipline and liberal culture, and at the same time to provide a thorough training in the underlying principles of business, fitting young men for careers in Banking, Finance, Accounting, Transportation, Manufacturing, Social Service and the Consular Service.

REQUIREMENTS FOR ADMISSION

All candidates for admission to the School of Economics must be at least sixteen years of age and furnish testimonials of good moral character. Those who come from other colleges must present certificates of regular dismissal.

METHODS OF ADMISSION

Admission is by one of the following methods:

1. EXAMINATION. Examinations are held at the University, beginning at 9 o'clock in the morning, on the three days following the Commencement in June, and on the three days preceding the opening of the College year in September. For 1910 these fall on June 16, 17 and 18, and September 22, 23 and 24.

Certificates of the College Entrance Examination Board are accepted in lieu of the entrance examination at the University.

2. CERTIFICATE FROM ACCREDITED SCHOOLS. Instead of examination, certificates from high schools and academies whose work has been approved by the University, and whose courses prepare for the Freshman class will be accepted. The official blank of certificate provided by the University must be used. It may be obtained, by application, from the Registrar.

3. FROM OTHER COLLEGES. Students from other colleges, whose entrance requirements are equivalent to those of the University of Pittsburgh, and which offer equivalent courses of study, will be credited with the work they have done in such colleges, and admitted to advanced standing without examination.

ENTRANCE REQUIREMENTS

The student applying for admission must offer fifteen units, a unit being a subject in which the work done is the equivalent of four recitations per week of one hour each for one year, or five of three-quarters of an hour each.

All students must offer six units in the following subjects:

English *a*, 3 units.

Mathematics *a*, Algebra, 1 unit.

Mathematics *b*, Plane Geometry, 1 unit.

History *a*, *b*, *c* or *d*, 1 unit.

The remaining nine units necessary to make the fifteen required may be offered from the following; four of these must be in language other than English and not more than two may be in History:

Latin *a*, *b*, *c*, *d*, 1 to 4 units.

Greek *a*, *b*, 1 to 2 units.

German *a*, *b*, *c*, 1 to 3 units.

French *a*, *b*, *c*, 1 to 3 units.

Mathematics *c*, Advanced Algebra, $\frac{1}{2}$ unit.

Mathematics *d*, Solid Geometry, $\frac{1}{2}$ unit.

Physics, 1 unit.

Chemistry, 1 unit.

History *b*, *c*, *d*, 1 unit.

English *b*, 1 unit.

Biology, 1 unit.

Drawing, 1 unit.

Physiography, $\frac{1}{2}$ unit.

Shop Work, 1 unit.

Advanced Languages, 1 unit.

Advanced History, 1 unit.

Advanced English, 1 unit.

EXPLANATION OF REQUIREMENTS FOR ADMISSION

The following subjects are accepted for admission:

ENGLISH COMPOSITION AND LITERATURE

a. Three units. The preparation should include the following subjects:

(1) Grammar—It is expected that the applicant will be familiar with the essentials of English grammar, and will be able to explain the construction of sentences that occur in the literature he has read.

(2) Composition and Rhetoric—The student should know the elementary principles of Rhetoric, and should be able to apply them in the construction of sentences and paragraphs, and in the planning of essays. The examination is chiefly practical, and involves the ability to write good English.

No student will be accepted whose paper is notably deficient in logical development of the subject, or in such details of form as spelling, punctuation, grammar, and division into paragraphs.

(3) Literature—The books recommended are the Uniform College Entrance requirements in English. Other similar works will be accepted as equivalents.

The candidate is required to write one or more paragraphs on each of several subjects chosen from a considerably larger number given in the examination paper. The questions on all the books assume a knowledge of subject-matter and structure, but those on the books prescribed for study and practice call for more detailed treatment than those on books prescribed for reading.

A—The books prescribed for reading and practice are:

For students entering in 1910, 1911, 1912 and 1913:

Ten units, two from each of the following groups. Each unit is set off by semicolons.

Group 1. The Old Testament, including the most important narrative parts of Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Odyssey, with the omission of Books I-V, XV-XVII; the Iliad with the omission of Books XI, XIII-XV, XXI; Virgil's Aeneid. English translation of the Odyssey, the Iliad, and the Aeneid, of acknowledged literary merit, must be used.

Additional units from Groups 2-5 may be substituted for the two units of this group.

Group 2. Shakespeare's *Julius Caesar*; *The Merchant of Venice*; *As You Like It*; *A Midsummer-Night's Dream*; *Twelfth Night*; *Henry V*.

Group 3. Goldsmith's *The Vicar of Wakefield*; either Scott's *Ivanhoe* or Scott's *Quentin Durward*; Hawthorne's *The House of the Seven Gables*; Thackeray's *Henry Esmond*; either Dickens' *A Tale of Two Cities* or Dickens' *David Copperfield*; Mrs. Gaskell's *Cranford*; George Eliot's *Silas Marner*; Stevenson's *Treasure Island*; Defoe's *Robinson Crusoe*, Part I.

Group 4. The de Coverley Papers in *The Spectator*; Franklin's *Autobiography*; Bunyan's *Pilgrim Progress*, Part I; Irving's *Sketch-Book*; Macaulay's Essays on Clive and Hastings; Thackeray's *English Humorists*; selections from Lincoln, including at least the two Inaugurals, the speeches in Independence Hall and at Gettysburg, the *Last Public Address*, and the *Letter to Horace Greely*, together with a short memoir or estimate; Parkman's *Oregon Trail*; Thoreau's *Walden*; Huxley's *Autobiography* and selections from *Lay Sermons*, including addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*; Stevenson's *Inland Voyage* and *Travels with a Donkey*.

Group 5. Palgrave's *Golden Treasury* (First Series), Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns; Gray's *Elegy in a Country Churchyard* and Goldsmith's *The Deserted Village*; Coleridge's *The Ancient Mariner* and Lowell's *The Vision of Sir Launfal*; Scott's *The Lady of the Lake*; Byron's *Childe Harold*, Canto IV, and *The Prisoner of Chillon*; Palgrave's *Golden Treasury* (First Series), Book IV, with special reference to Wordsworth, Keats, and Shelley; Poe's *The Raven*; Longfellow's *The Courtship of Miles Standish*, and Whittier's *Snow-Bound*; Macaulay's *Lays of Ancient Rome*, and Arnold's *Sohrab and Rustum*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the Sea*, *Incident of the French Camp*, *Herve Riel*, *Pheidippidee*, *My Last Duchess*, *Up at a Ville—Down in the City*.

B. The books prescribed for study and practice are:

For students entering in 1910, 1911, 1912 and 1913:

Shakespeare's *Macbeth*; Milton's *Lycidas*, *Comus*, *L'Allegro*, and *Il Penseroso*; Burke's Speech on *Conciliation with America*, or Washington's *Farewell Address* and Webster's *First Bunker Hill Oration*; Macaulay's *Life of Johnson* or Carlyle's *Essay on Burns*.

Applicants who are not graduates of accredited high schools, or who have not passed the uniform entrance examinations, will be required to present themselves at the University of Pittsburgh entrance examinations, held the two days preceding the opening of the Fall Term.

b. One unit.

Advanced standing in English may be given to the graduates of high schools that have exceptionally strong and thorough courses in English throughout the entire four years. This requires additional work in literature and, especially, a thorough knowledge of the elementary principles of Rhetoric, and the ability to write good English.

MATHEMATICS

a. Algebra Through Quadratics.

One unit.

The four fundamental operations for rational algebraic expressions. Factoring, determination of highest common factor and lowest common multiple by factring. Fractions, including complex fractions, ratio and proportion. Linear equations, both numerical and literal, containing one or more unknown quantities. Problems depending on linear equations. Radicals, including the extraction of the square root of polynominalls and of numbers. Exponents, including the fractional negative.

Quadratic equations, both numerical and literal. Simple cases of equations with one or more unknown quantities, that can be solved by

the methods of linear or quadratic equations. Problems depending on quadratic equations. The binomial theorem for positive integral exponents.

b. Plane Geometry.

One unit. The usual theorems and constructions of the text-books, including the general properties of plane recti-linear figures; the circle and the measurement of angles; similar polygons; areas; regular polygons and the measurement of the circle. The solution of numerous original exercises. Applications to mensuration.

c. Advanced Algebra.

One-half unit.

Ratio, proportion and variation; variables and limits; properties of series, including the binomial theorem for exponents of all kinds; the progressions; use of undetermined coefficients; permutations and combinations; logarithms, computation and use; summation of recurring series; method of differences; interpolation.

d. Solid Geometry.

One unit.

Solid Geometry. The usual theorems and constructions of good text-books, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle. The solution of numerous original exercises, including loci problems. Applications to the mensuration of surfaces and solids.

HISTORY

One unit each.

a. Ancient history, with special reference to Greek and Roman history, and including also a short introductory study of the more ancient nations and the chief events of the early Middle Ages, down to the death of Charlemange (814).

b. Mediæval and modern European history, from the death of Charlemange to the present time.

c. English history.

d. American history and civil government.

Each of the above topics is intended to represent one year of historical work, wherein the study is given five times per week, or two years of historical work, wherein the study is given three times per week.

LATIN

One unit each.

a. Grammar and elementary prose composition; a thorough knowledge of all regular inflections, all common irregular forms, the fundamentals of syntax and a select vocabulary.

b. Cæsar, *Gallic War*, Books I-IV, or the equivalent from other books of the *Gallic War* or the *Civil War*, or Nepos, *Lives*. The

examination consists of translation at sight of narrative prose similar to the above.

c. Cicero, the four orations against Catiline and the orations for Archias and for the Manilian Law, or the equivalent from other orations of Cicero or from his letters, or from Sallust, Catiline and Jugurtha, except that the orations for the Manilian Law and for Archias are required. Advanced prose composition. The examination consists of translation (together with historical, literary and grammatical questions) partly of passages taken from the two required orations, and partly at sight of passages similar to the above in vocabulary, syntax and range of ideas. In addition, there is an examination in prose composition.

d. Virgil, *Aeneid*, Books I-VI, or the equivalent from other books of the *Aeneid*, or from the *Bucolics* or *Georgics*, or from Ovid, *Metamorphoses*, *Fasti*, or *Tristia*, except that *Aeneid* I, II and either IV or VI are required. The examination consists of translation (together with questions on grammar, prosody, literary and historical allusions and subject-matter) partly of passages taken from the required books, and partly at sight of passages similar to the above in vocabulary, syntax and range of ideas.

GREEK

One or two units.

a. Greek Grammar and the Elements, forms, constructions, conditional sentences and indirect discourse, etc. Composition. Translation into Greek of easy Attic prose based on the *Anabasis*.

b. Xenophon's *Anabasis*. Four books. Homer. Books I and II of the *Iliad*.

GERMAN

One unit each.

a. Elementary German. During the first year the work should comprise (1) careful drill upon pronunciation; (2) the memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar; (4) abundant easy exercises designed, not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (5) the reading from 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lessons.

b. Second Year German. During the second year the work should comprise (1) the reading of from 150 to 200 pages of literature in the form of easy stories and plays; (2) practice as before, in the translation into German of easy variations upon the matter read, and also in the reproduction, orally and in writing, of the substance of

short and easy selected passages; (3) continued drill upon the rudiments of grammar.

Stories suitable for the elementary course can be selected from the following list: Grimms' *Maerchen*, Gerstaecker's *Germelshausen*, Heyse's *L'Arrabbiata*, Storm's *Immensee*, Baumbach's *Der Schwierger-sohn*, Schokke's *Der Zerbrochene Krug*, Hillern's *Hocher als Die Kirche*.

Among shorter plays the best available are perhaps: Benedix's *Der Prozess*, *Der Weiberfreund*; Elz's *Er ist nich eifersuechtig*; Wichert's *An der Majorsecke*; Wilhelm's *Einer muss heiraten*.

c. Third Year German. The work should comprise the reading of about 400 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes, and likewise upon word-order and word-formation.

Suitable reading matter for the third year can be selected from such works as the following: Freytag's *Die Journalisten* and *Bilder aus der Deutschen Vergangenheit*, for example, *Karl der Grosse*, *Aus den Kreuzzuegen*, *Doktor Luther Aus dem Staat Friedrichs des Grossen*, Gerstaecker's *Irrfahrten*, Hoffmann's *Historische Erzaehlungen*, Riehl's *Der Fluch der Schoenheit*, Schiller's *Wilhelm Tell*, *Der Neffe als Onkel*, *Das Lied von der Glocke*, Wildenbruch's *Das edle Blut*.

FRENCH

One unit each.

a. Elementary French. In the first year the work should comprise (1) careful drill in pronunciation; (2) the rudiments of grammar; (3) easy French prose; (5) writing French from dictation.

b. Second Year French. During the second year the student should read from 300 to 400 pages of easy modern prose. Suitable texts are: Halevy's *L'Abbe Constantin*; Bruno's *Le tour de la France*; Malot's *Sans familie*; Labiche and Martin's *La poudre aux yeux* and *Le voyage de M. Perricnon*; Dumas' *L'Evasion du Duc de Beaufort*. Continued drill upon the rudiments of grammar, the mastery of the chief irregular verbs, practice in French conversation.

c. Third Year French. In the third year from 500 to 600 pages of French of ordinary difficulty should be read. The essentials of French syntax are required, with constant practice in the use of spoken French. Suitable texts are: Daudet's *Contes*; About's *Le Roi des Montagnes*; Merimee's *Colomba*; Augier's *Le Gendre de M. Poirier*; Moliere's *Le Bourgeois Gentilhomme*; Maupassant's *Contes*; George Sand's *Le Mare au Diable*; Scribe's plays.

PHYSICS

One unit.

The candidate will be expected to be familiar with the fundamental principles of Physics. A sufficiently extended treatment of the subject will be found in any of the principal text-books now in use in secondary schools, such, for instance, as Milikan and Gale, Carhart and Chute, Hadley, Mann and Twiss.

It is furthermore very desirable for the student to have received training in laboratory work, but for the present no laboratory work will be required.

CHEMISTRY

One unit.

The knowledge gained, if elementary, should be sufficiently comprehensive and exact, including facts and laws. Laboratory work, emphasizing descriptive chemistry, is necessary and notes of this work must be presented. Much attention should be given to solution of problems.

BIOLOGY

One unit.

Under this one head are grouped the subjects of Botany, Zoology and Physiology. The one unit may be made in a single subject or by any combination of two. Laboratory exercises or field work, equal in time at least to that given to text-book and lecture is essential. In offering subject for credit the names of the text-books used should be given.

PHYSIOGRAPHY

One-half unit.

This subject, otherwise known as Physical Geography, must have been pursued as a special subject and not as a part of the earlier study of general geography, and a standard text-book, dealing with the subject solely, must have been used.

DRAWING

One unit.

Either free-hand or mechanical drawing, or both, may be offered. Specimens of the work done must be presented, properly certified by the instructor, with a statement of the length of time taken in the course which they represent.

SHOP-WORK

One unit.

The work done must usually have been of the systematic kind prescribed in courses of manual training.

No student with more than three entrance conditions will be admitted as a regular student. It is highly desirable that students should

enter without conditions. Conditions must be partly removed before the Sophomore year, and wholly removed before the Junior year.

Preparation for college work is not provided for by the University, except in the Summer School.

ADVANCED STANDING

A. From High School.

Students entering with more than fifteen units may receive college credit for high school work in excess of the fifteen only by taking special examination in this work on entering the University.

B. From Colleges.

See page 7.

DEGREES

Upon the satisfactory completion of the required work, with a minimum of 192 credits, the degree of Bachelor of Science in Economics will be conferred.

SPECIAL STUDENTS

Students who are unable to take the full four-year course, but who by reason of maturity, business experience, or general education, are qualified to do the work, may be admitted as special students. No degree will be conferred upon students taking only a special course.

The courses of special students will be arranged according to the previous training and the particular needs of the individual applicant.

EVENING SCHOOL

Many of the courses given in the School of Economics are offered also in the Evening School of Economics, Accounts and Finance. Though designed primarily for men engaged in business, who cannot take advantage of the full four-year day course, all the courses in the Evening School are open to day students, and full college credit will be given for courses satisfactorily completed therein.

For details of courses in the Evening School, see the special bulletin of that School.

TUITION

Fall Term.....	\$40.00
Winter Term	35.00
Spring Term.....	35.00
Summer Term.....	35.00

FEES

Matriculation	\$ 5.00
Gymnasium, per term.....	2.00
Diploma	5.00

The amount charged for tuition includes an athletic fee, which entitles students to free admission to the athletic events under the control of the General Athletic Committee of the University.

REQUIRED COURSES

FRESHMAN YEAR

		Fall.	Winter.	Spring.
German (1, 2, 3)				
<i>or</i>				
French (Romance 1, 2, 3)		*3	*3	*3
<i>or</i>				
Spanish (Romance 30, 31, 32)				
English (1, 2, 3).....	3	3	3	
Public Speaking (1).....	..	..	2	
History (1, 2).....	..	4	5	
Economics (1, 2, 3).....	2	2	2	
Accounting (Economics 47, 48, 49).....	2	2	2	
Government (Political Science 1, 2).....	3	3	..	
Physical Education.....	1	1	1	

* Credits. (One hour a week per term constitutes a credit.)

SOPHOMORE YEAR

		Fall.	Winter.	Spring.
French (Romance 4, 5, 6)				
<i>or</i>				
German (4, 5, 6)		3	3	3
<i>or</i>				
Spanish (Romance 33, 34, 35)				
English (15, 16).....	..	3	3	
Public Speaking (2, 3).....	2	2	..	
History (3, 4, 5).....	3	3	3	
Citizenship (Political Science 4).....	2	..	..
Municipal Government (Political Science 6, 7)....	..	2	2	
Money and Banking (Economics 4, 5, 6).....	2	2	2	

SCHOOL OF ECONOMICS

15

Sociology (1, 2, 3).....	2	2	2
Physical Education.....	1	1	1

JUNIOR YEAR

Fall. Winter. Spring.

Ethics (Philosophy 1).....	3	..	..
Psychology (1, 2, 3).....	3	3	3
Modern Industries (Economics 13, 16).....	2	2	..

JUNIOR AND SENIOR ELECTIVES

In addition to the above required courses, the student must elect in the Junior Year courses giving at least thirty (30) credits, of which not less than twenty-four (24) shall be in the three main groups: Economics, Political Science, Sociology.

In the Senior Year he must elect at least forty-seven (47) credits, of which thirty-six (36) must be in the three main groups named above.

ELECTIVES IN ECONOMICS

Fall. Winter. Spring.

Transportation (Economics 10, 11, 12).....	2	2	2
Industrial Management (Economics 16).....	..	2	..
Labor Problems (Economics 19).....	..	..	3
Corporation Finance (Economics 21).....	2	..	..
Investments (Economics 24).....	..	2	..
Brokerage .....	..	..	2
Public Finance (Economics 30, 31).....	2	2	..
Financial History of U. S. (Economics 32).....	..	..	2
Commercial History and Policy (Economics 34, 35)	2	2	..
Tariff and Foreign Trade Relations (Economics 36) .....	..	..	2
Insurance (Economics 37, 38, 39).....	2	2	2
Fire, Accident and Marine Insurance (Economics 40, 41, 42).....	2	2	2
Business Law (Economics 43, 44, 45).....	2	2	2
Accounting (Economics 50, 51, 52).....	2	2	2
Accounting (Economics 53, 54, 55).....	2	2	2
Industrial Chemistry.....	2	2	2
Biology (1, 2).....	4	4	..

ELECTIVES IN POLITICAL SCIENCE

Fall. Winter. Spring.

Comparative Government (Politics 9, 10).....	2	2	..
American Diplomacy (Politics 11).....	..	..	2
International Law (Politics 13).....	..	..	3
History of Political Theories (Politics 15).....	..	..	2

ELECTIVES IN SOCIOLOGY

	Fall.	Winter.	Spring.
Statistics (Sociology 4).....	2	..	..
Vital Statistics (Sociology 5).....	..	2	..
Industrial and Agricultural Statistics (Sociology 6) .....	..	..	2
Social Economy (Sociology 7, 8, 9).....	2	2	2
Research in Social Economy (Sociology 10, 11, 12)	2	2	2

DESCRIPTION OF COURSES**ECONOMICS****1, 2, 3. POLITICAL ECONOMY****MR. SMITH**

Three Terms; 2 credits each term

This course includes a consideration of the fundamental concepts of political economy which are pre-requisite to any advanced work in Economics. The nature of the science of Political Economy. Definition of the terms. The theory of political economy, including the theory of value, production, consumption and distribution. Factors of production. Shares of distribution. The present day problems of Economics are considered and an application of economic theory to the settlement of these problems is made. The problems of wages, labor unions, trusts and monopolies, protective tariff, interest, usury, taxation, immigration, socialism, single tax and social reform legislation.

Text-book, lectures, collateral readings and students' reports.

3 E. ECONOMICS**PROFESSOR BECK**

Winter Term; 3 credits

A brief resumé of economic theory. Discussion of practical economic problems; wages, interest, rent, currency, banking, taxation, trusts, tariff, socialism.

Open only to Engineering and special students.

Text-book and lectures.

4, 5, 6. MONEY AND BANKING**PROFESSOR HOLDSWORTH**

Three Terms; 2 credits each term

The history and development of banking, with special reference to American experience. The national bank system: organization and leading features, operations: departments and duties of officers and clerks, deposits, loans and discounts, collections, clearings, records and accounting systems, examinations, statements and reports, failures. Weakness of the reserve and circulation features. Proposed banking and currency

reforms. The arguments for and against a central bank. Savings banks, trust companies, international banking and foreign exchange. Foreign banking systems.

Money and Credit—An historical and theoretical study of the principles of money and credit. The development of credit uses. The monetary system of the United States. The relation of money to prices, and the influence of the money market upon trade and speculation. Text-book, lectures and assigned readings. Text-books, Fiske's *The Modern Bank*, Johnston's *Money and Currency*.

10, 11, 12. TRANSPORTATION

PROFESSOR HOLDSWORTH Three Terms; 2 credits each term

The origin and growth of the American railways. Their present ownership and control. The organization of the railway company, and how it does its work. Railway financing. The freight, passenger, express and mail service. Railway abuses. Regulation by the States and by the Federal Government. The Interstate Commerce Commission. Government ownership in the light of foreign experience. Railway rates and fares. Electric railway transportation. Ocean transportation. Ocean highways and seaboard terminals. The organization of ocean freight, passenger, express and mail service. The merchant marine. The question of subsidies. The river, lake and canal systems of the United States. The increasing importance of the inland waterways question. Text-book, lectures and assigned readings. Text-book, Johnston's *Elements of Transportation*.

13. MODERN INDUSTRIES

PROFESSOR HOLDSWORTH Fall Term; 2 credits

A study of the leading American industries, physiographic control, sources and supply of raw material, agricultural resources. Factors affecting the location of industry. Sources and application of power. Manufacturing methods, and factors affecting cost of production. Large scale versus small scale production. Internal commerce and foreign trade. Lectures, assigned readings and reports.

16. INDUSTRIAL MANAGEMENT

PROFESSOR HOLDSWORTH Winter Term; 2 credits

Advantages of various methods of business organization and management. The internal management of the large business or plant and the differentiation of the duties of various departments. Profit-sharing schemes. Labor problems. Markets and methods of distribution. A study of actual industrial conditions by visits to the mills and shops of Pittsburgh, special attention being given to the handling of raw material, the arrangement of plant, and shipping facilities. Lectures, assigned readings, reports, field work.

19. LABOR PROBLEMS

PROFESSOR HOLDSWORTH

Spring Term; 3 credits

The characteristic features of American industry and immigration with reference to the supply of labor. The organization, machinery and methods of the trade union and the employers' association. How strikes and boycotts are planned and conducted. The open and the closed shop. Arbitration and conciliation. Industrial efficiency. Labor legislation. The Federal and State laws and decisions relating to labor, the factory and sweatshop, and employers' liability. Text-book and assigned readings. Text-book, Adams and Sumner's *Labor Problems*.

21. CORPORATION FINANCE

PROFESSOR HOLDSWORTH

Fall Term; 2 credits

Types of business corporations. The genesis of the trust. The financial organization and management of corporations. The promoter and the underwriting syndicate. The disposition of gross earnings and the provision of new capital. Charter, articles and by-laws. Stockholders' powers, rights and liabilities. Dissolution, receiverships and reorganizations. Lectures and text-book, assigned readings and reports. Text-book, Lough's *Corporation Finance*.

24. INVESTMENTS

PROFESSOR HOLDSWORTH

Winter Term; 2 credits

The general characteristics and merits of government and municipal bonds, and of railway, industrial, public service corporation, power and irrigation securities. The farm and city mortgage. How securities are purchased and marketed. The organization of the investment business. A study of fluctuations in bond and stock prices to determine the influence acting upon security values. Analysis of typical securities and railroad reports. Examination of savings banks and trust company holdings. Lectures, assigned readings and reports.

27. BROKERAGE

PROFESSOR HOLDSWORTH

Spring Term; 3 credits

The organization and machinery of stock and produce exchanges. The terminology of the stock market. How stocks and bonds are listed and dealt in. Speculation. Dealing in "futures." Bucket shops. The "curb." Investment brokerage. The relation of the stock exchange to the country and to the banks. The broker and his work. The legal relationship of broker and customer. Lectures and reports.

***30, 31. PUBLIC FINANCE**

Fall and Winter Terms; 2 credits each term

Federal taxation and expenditures. Budget systems of other countries. The justice and incidence of taxation. State and municipal taxa-

* Not given in 1910-1911.

tion and expenditures. City budgets and municipal accounting. Text-book, Plehn's *Introduction to Public Finance*.

*32. FINANCIAL HISTORY OF THE UNITED STATES

Spring Term; 2 credits

A study of the fiscal and monetary history of the United States from colonial times to the present. Text-book, Dewey's *Financial History of the United States*.

*34, 35. COMMERCIAL HISTORY AND POLICY

Fall and Winter Terms; 2 credits

Colonial commerce and industry. The economic aspects of the Revolution. The public land system, and the new problems of conservation. Internal improvements and transportation. Slavery and the negro problem. Immigration. The merchant marine. Our insular possessions. The growth and supremacy of manufactures. The industrial genesis of the South. History of the tariff policy of the United States. Text-book, lectures, assigned readings and reports.

*36. TARIFF AND FOREIGN TRADE RELATIONS

Spring Term; 2 credits

Theory of international trade. Its development in recent years. Commercial treaties. Navigation laws, bounties, subsidies. International relations between the United States and the South American Republics and the Orient. Customs tariffs of the leading commercial nations. Methods and forms used in the foreign trade. The work of the consular service. Lectures, assigned readings and reports.

37, 38, 39. GENERAL INSURANCE

MR. CONRAD

Three Terms; 2 credits each term

A study of the origin and development of insurance. The different systems of life insurance, old line, assessment, fraternal, industrial. Various types of policies. A study of the policy contract. Investment of life insurance, and the relation of the insurance company to the state. Selling insurance. The class work will be supplemented by lectures on the practical phrases of insurance by prominent insurance men. Lectures and assigned readings.

* Not given in 1910-1911.

40, 41, 42. FIRE, ACCIDENT, MARINE AND FIDELITY INSURANCE**MR. CONRAD** Three Terms; 2 credits each term

A study of the various branches of insurance other than life insurance. The fixing of rates, the policies and their interpretations, the legal principles involved; organization and management; insurance practice. Lectures and assigned readings.

43, 44, 45. BUSINESS LAW**MR. CONRAD** Three Terms; 2 credits each term

The elementary principles of law relating to contracts, sales, negotiable instruments, common carriers, agency, partnership and corporations. Emphasis is laid upon the legal problems which arise in everyday business. Text-book, lectures, discussion of cases. Text-book, Sullivan's *Business Law of Pennsylvania*.

46. CONTRACTS AND SPECIFICATIONS**PROFESSOR BECK** Spring Term; 3 credits

In this course are presented the essential elements of a contract, the law pertaining thereto and parties who may contract. The consideration, discharge and remedies for breach of contract. Forms of proposals, specifications and illustrative examples of complete contracts and specification for various engineering projects are given.

47, 48, 49. ACCOUNTING I**MR. MAIN** Three Terms; 2 credits each term

Review of bookkeeping. Thorough drill in the theory of accounts, debit and credit, cash book, journal, posting, taking trial balances, inventories, balance sheets, loss and gain accounts, changing from single entry to double entry, from proprietorship to partnership, from partnership to corporation. Lectures and practice.

50, 51, 52. ACCOUNTING II**MR. MAIN** Three Terms; 2 credits each term

The purpose of this course is to apply the principles learned in Accounting I to particular lines of business. To this end the accounting systems and methods in use in various classes of business will be specifically studied and modern scientific labor-saving methods contrasted with the cumbersome, antiquated systems in use in many business houses. The accounts of banks, insurance companies, public service companies and railroads. Lectures, class drills and practical work.

53, 54, 55. ACCOUNTING III**MR. MAIN** Three Terms; 2 credits each term

This is an advanced course intended for those planning to take the State examination for the degree of Certified Public Accountant, that is, for those expecting to practise accounting as a profession. Thorough

drill will be given in the consideration and analysis of practical problems, taken largely from the questions given at the examination of the different States, and much practical work will be required.

The subject of auditing will also receive much attention, the purpose of the audit, the scope, the methods of procedure and the elements which make for success or failure. Drills in the preparation of clear and lucid reports, statements and schedules. This course will also include lectures on the history of accounting.

INDUSTRIAL CHEMISTRY

PROFESSOR DUNCAN

Three Terms; 2 credits each term

See College catalog.

BIOLOGY, 1, 2

PROFESSOR FETTERMANN

Fall and Winter Terms; 4 credits each term

See College catalog.

POLITICAL SCIENCE

1, 2. GOVERNMENT, FEDERAL AND STATE

PROFESSOR DYESS

Fall and Winter Terms; 3 credits each term

Historical development of government in America. Articles of Confederation. Adoption of the Constitution. The theory and practical operations of the executive, legislative and judiciary departments. The powers clause. The amendments and the conditions which brought them about. Differentiation between federal and state authority. General outlines of State and local governments. Text-book, lectures and assigned readings. Text-book, Bryce's *American Commonwealth*.

4. CITIZENSHIP

PROFESSOR HOLDSWORTH

Fall Term; 2 credits

The acquisition and loss of citizenship. Naturalization under the general law, by marriage, by treaty, by conquest. Passports. Expatriation. The insular cases. Party history, organization and management. Nominating systems. The primary, caucus and direct nominations. Initiative, referendum and recall. Lectures, assigned cases and readings.

6, 7. MUNICIPAL GOVERNMENT

PROFESSOR HOLDSWORTH Winter and Spring Terms; 2 credits each term

The organization and operations of municipalities. City government in the United States and Europe. Government by commission. Relation of municipalities to quasi-public works. Relation of city politics to state and federal politics. The new problems of the city. Lectures, assigned readings and reports.

9, 10. COMPARATIVE GOVERNMENT

MR. SMITH Fall and Winter Terms; 2 credits each term

A comparative study of the national political systems of the leading European countries. Party organization and methods. Lectures and assigned readings.

11. AMERICAN DIPLOMACY

MR. SMITH Spring Term; 2 credits

Historical study of the relations of the United States with foreign nations. Organization of the State Department. Diplomatic service. The treaty-making power. Monroe, Calvo and Drago doctrines. The "open door" in the Far East. Relation of the United States to the debtor American nations. Rise of the United States to the position of a world power. Lectures, required readings and reports.

13. INTERNATIONAL LAW

PROFESSOR BECK Spring Term; 3 credits

Historical development. Sources and authority of international law. The part played by the United States in its development. The law of peace, of neutrality, and of war. Blockade and contraband. The Hague Tribunal. The outlook for extension of international law. Text-book, lectures, assigned readings, and case reports.

15. HISTORY OF POLITICAL THEORIES

PROFESSOR DYESS Spring Term; 2 credits

Development of the political consciousness from early antiquity to modern times. Representative authors from Aristotle to Montesquieu are read and discussed. The connection between political theory and political fact. Lectures, assigned readings and reports.

SOCIOLOGY**1. RACE DEVELOPMENT**

MR. SMITH Fall Term; 2 credits

The development of the human race from the evolutionary standpoint. Text-book, lectures, collateral reading and student reports.

2. ETHNOLOGY AND ANTHROPOLOGY

MR. SMITH Winter Term; 2 credits

The effect of ethnological factors on the cases of mankind—physiographic features, organization, family life, customs, laws, morals and beliefs. The characteristics of the human race from the anthropological standpoint. Text-book, lectures, collateral reading and student reports.

3. PRINCIPLES OF SOCIOLOGY**MR. SMITH****Spring Term; 2 credits**

Historical and analytic study of the theory of Sociology. The important contribution of the different sociologic writers considered and discussed. Social psychology. Text-book, lectures, collateral reading.

4. STATISTICS**MR. SMITH****Fall Term; 2 credits**

History, theory and methods of statistics. Use of the graphic method as a means of interpretation. Individual work in the collection, tabulation and interpretation of statistical data. Lectures, collateral readings and student reports.

5. POPULATION AND VITAL STATISTICS**MR. SMITH****Winter Term; 2 credits**

The movement of population with special emphasis on the American problems. Internal migration and its characteristics, immigration and the immigrants' habitat. Human life from the statistical standpoint—births, marriage, divorce, death, disease, the conservation of human life. Use will be made of the statistics being collected by the city departments and other Pittsburgh organizations. Lectures, collateral readings and student reports. Prerequisite, Sociology IV.

6. INDUSTRIAL AND AGRICULTURAL STATISTICS**MR. SMITH****Spring Term; 2 credits**

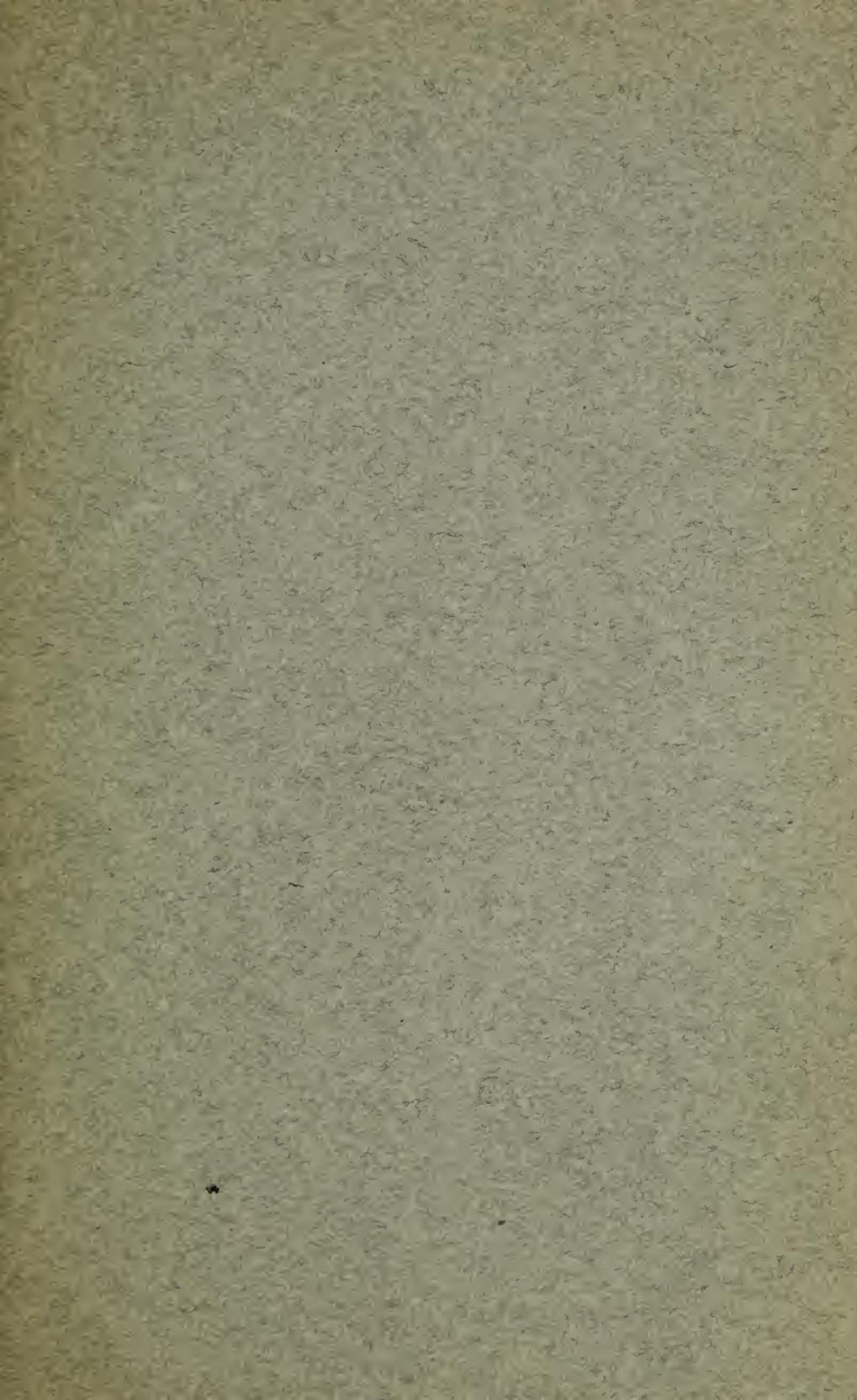
Statistical study of the changes in industry and agriculture—the growth of large scale industry, increase of the corporate form, the relative employment of labor and capital, increase of prices, wages, movement of industries, etc. Lectures, collateral readings and student reports. Prerequisite, Sociology IV.

7, 8, 9. SOCIAL ECONOMY**MR. SMITH****Three Terms; 2 credits each term**

Problems of the dependent, defective and delinquent. A study of charity, the pauper, the insane, the feeble-minded, and the dependent child; the best methods of dealing with them. Problems of crime: The criminal, jails, prisons, reformatories. A study of the preventive and educational measures now developing for the betterment of social conditions. Trips will be made to organizations and institutions in Pittsburgh and vicinity. This course is designed especially for students intending to go into social and philanthropical work, the ministry, and the foreign field, and for those who desire a first-hand knowledge of social conditions. Lectures, collateral reading, visits, and text-book—Henderson's *Defective, Dependent and Delinquent Classes*.

10, 11, 12. RESEARCH IN SOCIAL ECONOMY**MR. SMITH****Three Terms; 2 credits each term**

Original research work in the field of social economy. This course is open only to those undergraduates doing superior work in Sociology VII and to graduate students.



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BULLETIN

OF THE

SCHOOL OF ECONOMICS

1911 - 1912



Entered June 4, 1910 at the Post Office at Pittsburgh, Pa., as second class matter under act of Congress of July 16, 1894.

SCHOOL OF ECONOMICS

CALENDAR

1911

September 21-23	Thursday to Saturday—Entrance Examinations and Registration.
September 25	Monday—Fall Term begins.
Nov. 30-Dec. 2	Thanksgiving recess, Thursday to Saturday.
December 16	Saturday—Fall Term ends.
	Term Vacation from Monday, December 18, to Tuesday, January 1, 1912.

1912

January 2	Tuesday—Winter Term begins.
February 8	Thursday—Day of Prayer for Colleges.
February 22	Thursday—Washington's Birthday, holiday.
March 23	Saturday—Winter Term ends.
March 25	Monday—Spring vacation of one week begins.
April 1	Monday—Spring Term begins.
April 5	Good Friday, holiday.
June 9	Sunday—Baccalaureate Sermon.
June 12	Wednesday—Commencement.
June 13-15.	Thursday to Saturday—Entrance Examinations and Registration.

OFFICES AND OFFICE HOURS

Office, Thaw Building, Grant Boulevard—Consultation Hours: 9 A. M. to 12:30 P. M.

General Office, School of Mines Building; Telephone Schenley 2500.

For catalogs and other information, address the Secretary of the University, Grant Boulevard.

FACULTY

SAMUEL BLACK McCORMICK, D.D., LL.D., CHANCELLOR.

JOHN THOM HOLDSWORTH, PH.D., DEAN, Professor of Finance and Economics.

JOSEPH ALBERT BECK, B.S., LL.B., Professor of Political Economy.

GEORGE ALEXANDER MCKALLIP DYESS, A.M., PH.D., Professor of History.

JOSEPH ROYER CONRAD, Instructor in Law and Insurance.

THOMAS W. B. CRAFER, PH.D., Assistant Professor of Sociology.

FRANK WILBUR MAIN, C.P.A., Instructor in Accounting.

WILLIAM ROBERT MAIN, A.B., Instructor in Accounting.

CHARLES FRISBIE CHUBB, PH.B., Instructor in Real Estate.

FRANCIS NEWTON THORPE, PH.D., LL.D., Professor of Political Science and Constitutional Law.

IRA GRAESSLE FLOCKEN, A.M., Instructor in Industry and Accounting.

SAMUEL BLACK LINHART, A.M., D.D., Professor of Ethics.

SECRETARY of the University.

FERDINAND BERGER, A.M., Professor of the German Language and Literature.

JESSE HAYES WHITE, PH.D., Professor of Psychology and Education.

HARRY MARTIN SHAFER, A.M., Professor of the History of Education.

LINCOLN ROBINSON GIBBS, A.M., Professor of English.

PHILIP WARNER HARRY, PH.D., Assistant Professor of Romance Languages.

ARTHUR EDWARD FISH, A.B., Instructor in Public Speaking.

VINCENT HOLLAND OGBURN, PH.B., Instructor in English.

— Instructor in English.

— Instructor in French and Italian.

GENERAL STATEMENT

The School of Economics was established to provide professional training for business careers. Our universities and colleges are providing increasingly thorough preparation for those who purpose entering such professions as law, medicine, engineering, teaching, and the ministry. Modern conditions demand of the young man who intends to engage in commercial, industrial, and financial pursuits equally thorough training and preparation. The corporate organization of modern business demands broadly-trained officers and managers. The young man who starts with a disciplined and well-informed mind, a general knowledge of the fundamental principles of business, and a special knowledge of certain branches of business, will more readily gain promotion from routine work to positions of trust and responsibility. In the public service, too, there is an increasing demand for men who combine technical knowledge with broad vision and grasp of business principles.

The School of Economics aims to furnish mental discipline and liberal culture, and at the same time to provide a thorough training in the underlying principles of business, fitting young men for careers in Business Management, Banking and Finance, Accounting, Railway Administration, Manufacturing, Journalism, Social Service, the Consular Service, and Foreign Trade. It also provides training for social, philanthropic, and civic work. The increasing activity in civic and philanthropic movements calls for trained men and women to assume the leadership and direction of these organizations.

REQUIREMENTS FOR ADMISSION

All candidates for admission to the School of Economics must be at least sixteen years of age and furnish testimonials of good moral character. Those who come from other colleges must present certificates of regular dismissal.

METHODS OF ADMISSION

Admission is by one of the following methods:

I. EXAMINATION. Examinations are held at the University, beginning at 9 o'clock in the morning, on the three days following the Commencement in June, and on the three days preceding the opening of the College year in September. For 1911 these dates fall on June 15, 16, and 17, and September 21, 22, and 23.

Certificates of the College Entrance Examination Board are accepted in lieu of the entrance examination at the University.

2. CERTIFICATE FROM ACCREDITED SCHOOLS. Instead of examination, certificates from high schools and academies whose work has been approved by the University, and whose courses prepare for the Freshman class will be accepted. The official blank of certificate provided by the University must be used. It may be obtained, by application, from the Registrar.

3. FROM OTHER COLLEGES. Students from other colleges, whose entrance requirements are equivalent to those of the University of Pittsburgh, and which offer equivalent courses of study, will be credited with the work they have done in such colleges, and admitted to advanced standing without examination.

ENTRANCE REQUIREMENTS

The student applying for admission must offer fifteen units, a unit being a subject in which the work done is the equivalent of four recitations per week of one hour each for one year, or five of three-quarters of an hour each.

All students must offer six units in the following subjects:

English *a*, 3 units.

Mathematics *a*, Algebra, 1 unit.

Mathematics *b*, Plane Geometry, 1 unit.

History *a*, *b*, *c*, or *d*, 1 unit.

The remaining nine units necessary to make the fifteen required may be offered from the following; four of these must be in language other than English and not more than two may be in history:

Latin *a*, *b*, *c*, *d*, 1 to 4 units.

Greek *a*, *b*, 1 to 2 units.

German *a*, *b*, *c*, 1 to 3 units.

French *a*, *b*, *c*, 1 to 3 units.

Mathematics *c*, Advanced Algebra, $\frac{1}{2}$ unit.

Mathematics *d*, Solid Geometry, $\frac{1}{2}$ unit.

Physics, 1 unit.

Chemistry, 1 unit.

History *b*, *c*, *d*, 1 unit.

English *b*, 1 unit.

Biology, 1 unit.

Drawing, 1 unit.

Physiography, $\frac{1}{2}$ unit.

Shop Work, 1 unit.

Advanced Languages, 1 unit.

Advanced History, 1 unit.

Advanced English, 1 unit.

EXPLANATION OF REQUIREMENTS FOR ADMISSION

The following subjects are accepted for admission:

English Composition and Literature

a. Three units. The preparation should include the following subjects:

(1) GRAMMAR. It is expected that the applicant will be familiar with the essentials of English grammar, and will be able to explain the construction of sentences that occur in the literature he has read.

(2) COMPOSITION AND RHETORIC. The student should know the elementary principles of Rhetoric, and should be able to apply them in the construction of sentences and paragraphs, and in the planning of essays. The examination is chiefly practical, and involves the ability to write good English.

No student will be accepted whose paper is notably deficient in logical development of the subject, or in such details of forms as spelling, punctuation, grammar, and division into paragraphs.

(3) LITERATURE. The books recommended are the Uniform College Entrance requirements in English. Other similar works will be accepted as equivalents.

The candidate is required to write one or more paragraphs on each of several subjects chosen from a considerably larger number given in the examination paper. The questions on all the books assume a knowledge of subject-matter and structure, but those on the books prescribed for study and practice call for more detailed treatment than those on books prescribed for reading.

A—The books prescribed for reading and practice are:

For students entering in 1911, 1912 and 1913:

Ten units, two from each of the following groups. Each unit is set off by semicolons.

Group 1. The Old Testament, including the most important narrative parts of Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the Odyssey, with the omission of Books I-V, XV-XVII; the Iliad, with the omission of Books XI, XIII-XV, XXI; Virgil's *Aeneid*. English translation of the Odyssey, the Iliad, and the *Aeneid*, of acknowledged literary merit, must be used.

Additional units from Groups 2-5 may be substituted for the two units of this group.

Group 2. Shakespeare's *Julius Caesar*; *The Merchant of Venice*; *As You Like It*; *A Midsummer-Night's Dream*; *Twelfth Night*; *Henry V*.

Group 3. Goldsmith's *The Vicar of Wakefield*; either Scott's *Ivanhoe* or Scott's *Quentin Durward*; Hawthorne's *The House of the Seven Gables*; Thackeray's *Henry Esmond*; either Dickens' *A Tale of Two Cities* or Dickens' *David Copperfield*; Mrs. Gaskell's *Cranford*; George Eliot's *Silas Marner*; Stevenson's *Treasure Island*; Defoe's *Robinson Crusoe*, Part I.

Group 4. The de Coverley Papers in *The Spectator*; Franklin's *Autobiography*; Bunyan's *Pilgrim's Progress*, Part I; Irving's *Sketch-Book*; Macaulay's Essays on Clive and Hastings; Thackeray's *English Humorists*; selections from Lincoln, including at least the two Inaugurals, the speeches in Independence Hall and at Gettysburg, the *Last Public Address*, and the *Letter to Horace Greely*, together with a short memoir or estimate; Parkman's *Oregon Trail*; Thoreau's *Walden*; Huxley's *Autobiography* and selections from *Lay Sermons*, including addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*; Stevenson's *Inland Voyage* and *Travels with a Donkey*.

Group 5. Palgrave's *Golden Treasury* (First Series), Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns; Gray's *Elegy in a Country Churchyard* and Goldsmith's *The Deserted Village*; Coleridge's *The Ancient Mariner* and Lowell's *The Vision of Sir Launfal*; Scott's *The Lady of the Lake*; Byron's *Childe Harold*, Canto IV, and *The Prisoner of Chillon*; Palgrave's *Golden Treasury* (First Series), Book IV, with special reference to Wordsworth, Keats, and Shelley; Poe's *The Raven*; Longfellow's *The Courtship of Miles Standish*, and Whittier's *Snow-Bound*; Macaulay's *Lays of Ancient Rome*, and Arnold's *Sohrab and Rustum*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the sea*, *Incident of the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*.

B. The books prescribed for study and practice are:

For students entering in 1911, 1912, and 1913:

Shakespeare's *Macbeth*; Milton's *Lycidas*, *Comus*, *L'Allegro*, and *Il Penseroso*; Burke's *Speech on Conciliation with America*, or Washington's *Farewell Address* and Webster's *First Bunker-Hill Oration*; Macaulay's *Life of Johnson* or Carlyle's *Essay on Burns*.

Applicants who are not graduates of accredited high-schools, or who have not passed the uniform entrance-examinations, will be required to present themselves at the University of Pittsburgh entrance-examinations, held the three days preceding the opening of the Fall Term.

b. One unit.

Advanced standing in English may be given to the graduates of high-schools that have exceptionally strong and thorough courses in English

throughout the entire four years. This requires additional work in literature and, especially, a thorough knowledge of the elementary principles of Rhetoric, and the ability to write good English.

Mathematics

a. ALGEBRA THROUGH QUADRATICS.

One unit.

The four fundamental operations for rational algebraic expressions. Factoring, determination of highest common factor and lowest common multiple by factoring. Fractions, including complex fractions, ratio, and proportion. Linear equations, both numerical and literal, containing one or more unknown quantities. Problems depending on linear equations. Radicals, including the extraction of the square root of polynomials and of numbers. Exponents, including the fractional negative.

Quadratic equations, both numerical and literal. Simple cases of equations with one or more unknown quantities, that can be solved by the methods of linear or quadratic equations. Problems depending on quadratic equations. The binomial theorem for positive integral exponents.

b. PLANE GEOMETRY.

One unit. The usual theorems and constructions of the text-books, including the general properties of plane rectilinear figures; the circle and the measurement of angles; similar polygons; areas; regular polygons and the measurement of the circle. The solution of numerous original exercises. Applications to mensuration.

c. ADVANCED ALGEBRA.

One-half unit.

Ratio, proportion and variation; variables and limits; properties of series, including the binomial theorem for exponents of all kinds; the progressions; use of undetermined coefficients; permutations and combinations; logarithms, computation and use; summation of recurring series; method of differences; interpolation.

d. SOLID GEOMETRY.

One unit.

Solid Geometry. The usual theorems and constructions of good text-books, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere, and the spherical triangle. The solution of numerous original exercises, including loci problems. Applications to the mensuration of surfaces and solids.

History

One unit.

a. ANCIENT HISTORY. With special reference to Greek and Roman history, and including also a short introductory study of the more ancient nations and the chief events of the early Middle Ages, down to the death of Charlemagne (814).

b. MEDIAEVAL AND MODERN HISTORY. European history, from the death of Charlemagne to the present time.

c. ENGLISH HISTORY.

d. AMERICAN HISTORY AND CIVIL GOVERNMENT.

Each of the above topics is intended to represent one year of historical work, wherein the study is given five times per week, or two years of historical work, wherein the study is given three times per week.

Latin

One unit each.

a. GRAMMAR and elementary prose composition; a thorough knowledge of all regular inflections, all common irregular forms, the fundamentals of syntax, and a select vocabulary.

b. CAESAR, *Gallic War*, Books I-IV, or the equivalent from other books of the *Gallic War* or the *Civil War*, or Nepos, *Lives*. The examination consists of translation at sight of narrative prose similar to the above.

c. CICERO, the four orations against Catiline and the orations for Archias and for the Manilian Law, or the equivalent from other orations of Cicero or from his letters, or from Sallust, Catiline and Jugurtha, except that the orations for the Manilian Law and for Archias are required. Advanced prose composition. The examination consists of translation (together with historical, literary and grammatical questions) partly of passages taken from the two required orations, and partly at sight of passages similar to the above in vocabulary, syntax and range of ideas. In addition, there is an examination in prose composition.

d. VIRGIL, *Aeneid*, Books I-VI, or the equivalent from other books of the *Aeneid*, or from the *Bucolics* or *Georgics*, or from Ovid, *Metamorphoses*, *Fasti*, or *Tristia*, except that *Aeneid* I, II and either IV or VI are required. The examination consists of translation (together with questions on grammar, prosody, literary and historical allusions, and subject-matter) partly of passages taken from the required books, and partly, at sight, of passages similar to the above in vocabulary, syntax, and range of ideas.

Greek

One or two units.

- a. GREEK GRAMMAR and the elements, forms, constructions, conditional sentences, indirect discourse, etc. Composition. Translation into Greek of easy Attic prose based on the *Anabasis*.
- b. XENOPHON'S *Anabasis*. Four books. HOMER, Books I and II of the *Iliad*.

German

One unit each.

a. ELEMENTARY GERMAN. During the first year the work should comprise (1) careful drill upon pronunciation; (2) the memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar; (4) abundant easy exercises designed, not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (5) the reading of from 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lessons.

b. SECOND YEAR GERMAN. During the second year the work should comprise (1) the reading of from 150 to 200 pages of literature in the form of easy stories and plays; (2) practice as before, in the translation into German of easy variations upon the matter read, and also in the reproduction, orally and in writing, of the substance of short and easy selected passages; (3) continued drill upon the rudiments of grammar.

Stories suitable for the elementary course can be selected from the following list: Grimms' *Märchen*, Gerstäcker's *Germelshausen*, Heyse's *L'Arrabbiata*, Storm's *Immensee*, Baumbach's *Der Schwiergersohn*, Schokke's *Der Zerbrochene Krug*, Hillern's *Höher als Die Kirche*.

Among shorter plays the best available are, perhaps: Benedix's *Der Prozess*, *Der Weiberfreund*; Elz's *Er ist nicht eifersüchtig*; Wichert's *An der Majorsecke*; Wilhelm's *Einer muss heiraten*.

c. THIRD YEAR GERMAN. The work should comprise the reading of about 400 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes, and likewise upon word-order and word-formation.

Suitable reading matter for the third year can be selected from such works as the following: Freytag's *Die Journalisten* and *Bilder aus der deutschen Vergangenheit*, for example, *Karl der Grosse*, *Aus den Kreuzzügen*, *Doktor Luther Aus dem Staat Frederichs des Grossen*, Gerstäcker's *Irrfahrten*, Hoffman's *Historische Erzählungen*, Riehl's *Der*

Fluch der Schönheit, Schiller's *Wilhelm Tell*, *Der Nefe als Onkel*,
Das Lied von der Glocke, Wildenbruch's *Das edle Blut*.

French

One unit each.

a. ELEMENTARY FRENCH. In the first year the work should comprise (1) careful drill in pronunciation; (2) the rudiments of grammar; (3) easy composition; (4) the reading of from 150 to 200 duo-decimo pages of easy French prose; (5) writing French from dictation.

b. SECOND YEAR FRENCH. During the second year the student should read from 300 to 400 pages of easy modern prose. Suitable texts are: Halévy's *L'Abbé Constantin*; Bruno's *Le tour de la France*; Malot's *Sans famille*; Labiche and Martin's *La poudre aux yeux* and *Le voyage de M. Perrichon*; Dumas' *L'Evasion du Duc de Beaufort*. Continued drill upon the rudiments of grammar, the mastery of the chief irregular verbs, dictation, practice in French conversation.

c. THIRD YEAR FRENCH. In the third year from 500 to 600 pages of French of ordinary difficulty should be read. The essentials of French syntax are required, with constant practice in the use of spoken French. Suitable texts are: Daudet's *Contes*; About's *Le Roi des Montagnes*; Mérimée's *Colomba*; Augier's *Le Gendre de M. Poirier*; Moliere's *Le Bourgeois Gentilhomme*; Maupassant's *Contes*; George Sand's *Le Mare au Diable*; Scribe's plays.

Physics

One unit.

The candidate will be expected to be familiar with the fundamental principles of physics. A sufficiently extended treatment of the subject will be found in any of the principal text-books now in use in secondary schools, such, for instance, as Milliken and Gale, Carhart and Chute, Hadley, Mann and Twiss.

It is furthermore very desirable for the student to have received training in laboratory work, but for the present no laboratory work will be required.

Chemistry

One unit.

The knowledge gained, should be sufficiently comprehensive to include all broadly fundamental facts, and exact. Laboratory work, emphasizing descriptive chemistry, is necessary, and notes of this work must be presented. Much attention should be given to solutions of problems.

Biology

One unit.

Under this one head are grouped the subjects of Botany, Zoölogy, and Physiology. The one unit may be made in a single subject or by any

combination of two. Laboratory exercises or field-work, equal in time at least to that given to text-book and lecture, is essential. In offering subject for credit the names of the text-books used should be given.

Physiography

One-half unit.

This subject, otherwise known as Physical Geography, must have been pursued as a special subject and not as a part of the earlier study of general geography ,and a standard text-book, dealing with the subject solely, must have been used.

Drawing

One unit.

Either free-hand or mechanical drawing, or both, may be offered. Specimens of the work done must be presented, properly certified by the instructor, with a statement of the length of time taken in the course which they represent.

Shop-Work

One unit.

The work done must usually have been of the systematic kind prescribed in courses of manual training.

ENTRANCE CONDITIONS

No applicant with more than three units of entrance conditions will be admitted as a regular student. It is highly desirable that students should enter without conditions. Conditions must be partly removed before the Sophomore year, and wholly removed before the Junior year.

Preparation for college work is not provided for by the University, except in the Summer term.

ADVANCED STANDING

A. From High and other Preparatory Schools.

Students entering with more than 15 units may receive college credit for work in excess of the 15, when such work includes courses given under the same name in the University, only by taking special examination in this work.

B. From other Colleges.

Students from other colleges, whose entrance requirements are equivalent to those of the University, and which offer equivalent courses of study, will be credited with work done in such colleges, and admitted to advanced standing without examination.

DEGREES

Upon the satisfactory completion of the required work, with a minimum of 192 credits, the degree of Bachelor of Science in Economics will be conferred.

SPECIAL STUDENTS

Students who are unable to take the full four-year course, but who by reason of maturity, business experience, or general education, are qualified to do the work, may be admitted as special students. No degree will be conferred upon students taking only a special course.

The courses of special students will be arranged according to the previous training and the particular needs of the individual applicant.

EVENING SCHOOL

Many of the courses given in the School of Economics are offered also in the Evening School of Economics, Accounts, and Finance. Though designed primarily for men engaged in business, who cannot take advantage of the full four-year day course, all the courses in the Evening School are open to day students, and full college credit will be given for courses satisfactorily completed therein.

TUITION

Fall Term	\$40.00
Winter Term	35.00
Spring Term	35.00
Summer Term	35.00

Fees

Matriculation	\$ 5.00
Gymnasium, per term	2.00
Diploma	5.00

The amount charged for tuition includes an athletic fee, which entitles students to free admission to the athletic events under the control of the General Athletic Committee of the University.

REQUIRED COURSES

Freshman Year

		Fall.	Winter.	Spring.
German (1, 2, 3)				
<i>or</i>				
French (Romance 1, 2, 3)	}	.....	*3	*3
<i>or</i>				
Spanish (Romance 30, 31, 32)	}			
English (1, 2, 3)		3	3	3
Public Speaking (1) .....		..	..	2
European History (3, 4, 5)		3	3	3
Economics (1, 2, 3)		3	3	3
Accounting (Economics 47, 48, 49)		2	2	2
Government (Political Science 1, 2, 3)		2	2	2
Physical Education		I	I	I

* Credits. (One hour a week per term constitutes a credit).

Sophomore Year

		Fall.	Winter.	Spring.
French (Romance 4, 5, 21)				
<i>or</i>				
German (4, 5, 6)	}	.....	3	3
<i>or</i>				
Spanish (Romance 35, 36, 37)	}			
English (7, 8, 16)		3	3	3
Public Speaking (2, 3, 8)		2	2	2
American History (6, 7, 8)		3	3	3
Money and Banking (Economics 4, 5, 6)		2	2	2
Economic Resources (Economics 7, 8, 9)		2	2	2
Sociology (1, 2, 3)		2	2	2
Physical Education		I	I	I

Junior Year

		Fall.	Winter.	Spring.
Ethics (Philosophy 1), <i>or</i> .....		..	3	..
Logic (Philosophy 3) .....		..	..	3
Psychology (1, 2)		3	3	..

Junior and Senior Electives

In the last two years of his course, the student must elect courses (approximately 48 credits each year), which will give a total of 192 credits

required for graduation. These courses must be taken *mainly* in the three leading groups: Economics, Political Science, Sociology.

Juniors, especially, are urged to continue modern languages,—Commercial German, Commercial Spanish, Commercial French.

Electives in Economics

	Fall.	Winter.	Spring.
Transportation (Economics 10, 11, 12)	2	2	2
Modern Industries (Economics 13)	2	..	..
Industrial Management (Economics 16) .....	..	2	..
Labor Problems (Economics 19) .....	..	..	3
Corporation Finance (Economics 21)	2	..	..
Investments (Economics 24) .....	..	2	..
Brokerage (Economics 27) .....	..	..	2
Public Finance (Economics 30, 31)	2	2	..
Financial History of U. S. (Economics 32) .....	..	..	2
Commercial History and Policy (Economics 34, 35)	2	2	..
Tariff and Foreign Trade Relations (Economics 36) .....	..	..	2
Insurance (Economics 37, 38, 39)	2	2	2
Fire, Accident, and Marine Insurance (Economics 40, 41, 42)	2	2	2
Business Law (Economics 43, 44, 45)	2	2	2
Accounting (Economics 50, 51, 52)	2	2	2
Accounting (Economics 53, 54, 55)	2	2	2

Electives in Political Science

	Fall.	Winter.	Spring.
Municipal Government (Politics 4, 5)	2	2	..
Citizenship (Politics 6) .....	..	..	2
Comparative Government (Politics 9, 10)	2	2	..
American Constitutional Law (Politics 12, 13)	2	2	..
Comparative Constitutional Law (Politics 15, 16)	2	2	..
American Diplomacy (Politics 18) .....	..	..	2
International Law (Politics 20) .....	..	..	3
Conference and Seminar (Politics 22)	1	1	1

Electives in Sociology

	Fall.	Winter.	Spring.
Theory of Sociology (Sociology 4)	2	..	..
Social Problems (Sociology 5) .....	..	2	..
Critical Sociology (Sociology 6) .....	..	..	2
Social Economy (Sociology 7, 8, 9)	2	2	2
Research in Social Economy (Sociology 10, 11, 12)	2	2	2

DESCRIPTION OF COURSES

Economics

1, 2, 3. POLITICAL ECONOMY

MR. FLOCKEN AND DR. CRAFER

Three Terms; 3 credits each term

This course includes a consideration of the fundamental concepts of political economy which are pre-requisite to any advanced work in Economics. Definition of the terms. The theory of political economy, including the theory of value, production, consumption, and distribution. Factors of production. Shares of distribution. The present-day problems of Economics are considered and an application of economic theory to the settlement of these problems is made. The problems of wages, labor-unions, trusts, and monopolies, protective tariff, interest, usury, taxation, immigration, socialism, single tax and social-reform legislation.

Text-book, lectures, collateral readings, and students' reports.

3 E. ECONOMICS

DR. CRAFER

Winter Term; 3 credits

A brief résumé of economic theory. Discussion of practical economic problems; wages, interest, rent, currency, banking, taxation, trusts, tariff, socialism.

Open only to Engineering and special students.

Text-book and lectures.

4, 5, 6. MONEY AND BANKING

PROFESSOR HOLDSWORTH

Three Terms; 2 credits each term

Historical and theoretical study of the principles of money and credit. Evolution of money. Functions of money. The monetary system of the United States. Fiat and credit money. Bimetallism. Factors affecting supply and demand. Theory of prices. Price tables. Nature and uses of credit. Credit instruments. Relation of credit to prices. Domestic and foreign exchange.

The history and development of banking, with special reference to American experience. The national-bank system: organization and leading features, operations, departments and duties of officers and clerks, deposits, loans and discounts, collections, clearings, records and accounting systems, examinations, statements and reports, failures. Weakness of the reserve and circulation features. Proposed banking and currency reform. The arguments for and against a central bank. Savings banks, trust companies, international banking. Foreign banking systems. Text-book, lectures, assigned readings, and reports.

7, 8, 9. ECONOMIC RESOURCES

PROFESSOR HOLDSWORTH

Three Terms; 2 credits each term

A study of the natural resources of the United States,—mineral, animal, agricultural. Especial attention is given to agriculture, and to the problem of conservation. Examination of the resources and industrial conditions of different sections of the country, as the basis of our enormous domestic trade. Examination of the resources and industrial needs of a few typical foreign countries in Europe, South America, and the Orient, to indicate the basis of our foreign trade. Text-book, lectures, assigned readings, and reports.

10, 11, 12. TRANSPORTATION

MR. FLOCKEN

Three Terms; 2 credits each term

The origin and growth of American railways. Their present ownership and control. The organization of the railway company, and how it does its work. Railway financing. The freight, passenger, express, and mail service. Railway abuses. Regulation by the States and by the Federal Government. The Interstate Commerce Commission. Government ownership in the light of foreign experience. Railway rates and fares. Electric railway transportation. Ocean transportation. Ocean highways and seaboard terminals. The organization of ocean freight, passenger, express, and mail service. The merchant marine. The question of subsidies. The river, lake, and canal systems of the United States. The increasing importance of the inland-waterways question. Text-book, lectures and assigned readings. Text-book, Johnston's *American Railway Transportation and Ocean and Inland Water Transportation*.

13. MODERN INDUSTRIES

MR. FLOCKEN

Fall Term; 2 credits

A study of the leading manufacturing industries. Sources and supply of raw material. Factors affecting the location of industry. Sources and application of power. Manufacturing methods, and factors affecting cost of production. Large-scale *versus* small-scale production. Home and foreign markets for domestic manufactures. Lectures, assigned readings, and reports.

16. INDUSTRIAL MANAGEMENT

MR. FLOCKEN

Winter Term; 2 credits

Advantages of various methods of business organization and management. "Scientific management." The internal management of the large business or plant and the differentiation of the duties of various departments. Profit-sharing schemes. Labor problems. Markets and methods of distribution. A study of actual industrial conditions by visits to the mills and shops of Pittsburgh, special attention being given to the handling of raw material, the arrangement of plant, and shipping facilities. Lectures, assigned readings, reports, field work.

19. LABOR PROBLEMS

MR. FLOCKEN

Spring Term; 3 credits

The characteristic features of American industry and immigration with reference to the supply of labor. The organization, machinery, and methods of the trade-union and the employers' association. The planning and conduct of strikes and boycotts. The open and the closed shop. Arbitration and conciliation. Industrial efficiency. Labor legislation. The Federal and State laws and decisions relating to labor, the factory and sweatshop, and employers' liability. Text-book and assigned readings. Text-book, Adams and Sumner's *Labor Problems*.

21. CORPORATION FINANCE

PROFESSOR HOLDSWORTH

Fall Term; 2 credits

Types of business corporations. The genesis of the trust. The financial organization and management of corporations. The promoter and the underwriting syndicate. The disposition of gross earnings and the provision of new capital. Charter, articles, and by-laws. Stockholders' powers, rights, and liabilities. Dissolution, receiverships and reorganizations. Lectures and text-book, assigned readings, and reports. Text-book, Lough's *Corporation Finance*.

24. INVESTMENTS

PROFESSOR HOLDSWORTH

Winter Term; 2 credits

The general characteristics and merits of government and municipal bonds, and of railway, industrial, public-service-corporation, power and irrigation securities. The farm and city mortgage. How securities are purchased and marketed. The organization of the investment business. A study of fluctuations in bond and stock prices to determine the influences acting upon security values. Analysis of typical securities and railroad reports. Examination of savings banks and trust company holdings. Lectures, assigned readings, and reports.

27. BROKERAGE

PROFESSOR HOLDSWORTH

Spring Term; 2 credits

The organization and machinery of stock and produce exchanges. The terminology of the stock market. How stocks and bonds are listed and dealt in. Speculation. Dealing in "futures." Bucket shops. The "curb." Investment brokerage. The relation of the stock exchange to the country and to the banks. The broker and his work. The legal relationship of broker and customer. Lectures and reports.

30, 31. PUBLIC FINANCE

PROFESSOR HOLDSWORTH

Fall and Winter Terms; 2 credits each term

Federal taxation and expenditures. Budget systems of other countries. The justice and incidence of taxation. State and municipal taxa-

tion and expenditures. City budgets and municipal accounting. Text-book, Plehn's *Introduction to Public Finance*.

32. FINANCIAL HISTORY OF THE UNITED STATES

PROFESSOR HOLDSWORTH

Spring Term; 2 credits

A study of the fiscal and monetary history of the United States from colonial times to the present. Text-book, Dewey's *Financial History of the United States*.

34, 35. COMMERCIAL HISTORY AND POLICY

DR. CRAFER

Fall and Winter Terms; 2 credits

Colonial commerce and industry. The economic aspects of the Revolution. The public-land system, and the new problems of conservation. Internal improvements and transportation. Slavery and the negro problem. Immigration. The merchant marine. Our insular possessions. The growth and supremacy of manufactures. The industrial genesis of the South. History of the tariff policy of the United States. Text-book, lectures, assigned readings, and reports.

36. TARIFF AND FOREIGN TRADE RELATIONS

DR. CRAFER

Spring Term; 2 credits

Theory of international trade. Its development in recent years. Commercial treaties. Navigation laws, bounties, subsidies. International relations between the United States and the South American Republics and the Orient. Customs tariffs of the leading commercial nations. Methods and forms used in the foreign trade. The work of the consular service. Lectures, assigned readings, and reports.

37, 38, 39. GENERAL INSURANCE

MR. FLOCKEN

Three Terms; 2 credits each term

A study of the origin and development of insurance. The different systems of life-insurance, old-line, assessment, fraternal, industrial. Various types of policies. A study of the policy contract. Investment of life-insurance, and the relation of the insurance company to the state. Selling insurance. The class-work will be supplemented by lectures on the practical phases of insurance by prominent insurance men. Lectures and assigned readings.

40, 41, 42. FIRE, ACCIDENT, MARINE, AND FIDELITY INSURANCE

MR. CONRAD

Three Terms; 2 credits each term

A study of the various branches of insurance other than life insurance. The fixing of rates, the policies and their interpretations, the legal principles involved, organization and management, insurance practice. Lectures and assigned readings.

43, 44, 45. BUSINESS LAW

Mr. CONRAD

Three Terms; 2 credits each term

The elementary principles of law relating to contracts, sales, negotiable instruments, common carriers, agency, partnerships, and corporations. Emphasis is laid upon the legal problems which arise in everyday business. Text-book, lectures, discussion of cases. Text-book, Sullivan's *Business Law of Pennsylvania*.

47, 48, 49. ACCOUNTING I

Mr. FLOCKEN

Three Terms; 2 credits each term

Review of bookkeeping. Thorough drill in the theory of accounts, debit and credit, cash book, journal, posting, taking trial balances, inventories, balance sheets, loss and gain accounts, changing from single entry to double entry, from proprietorship to partnership, from partnership to corporation. Lectures and practice.

50, 51, 52. ACCOUNTING II

Mr. FLOCKEN

Three Terms; 2 credits each term

The purpose of this course is to apply the principles learned in Accounting I to particular lines of business. To this end the accounting systems and methods in use in various classes of business will be specifically studied and modern scientific labor-saving methods contrasted with the cumbersome, antiquated systems in use in many business houses. The accounts of banks, insurance companies, public-service companies, and railroads will receive attention. Lectures, class drills and practical work.

***53, 54, 55. ACCOUNTING III**

Mr. FLOCKEN

Three Terms; 2 credits each term

This is an advanced course intended for those planning to take the State examination for the degree of Certified Public Accountant, that is, for those expecting to practice accounting as a profession. Thorough drill will be given in the consideration and analysis of practical problems, taken largely from the questions given at the examination of the different States, and much practical work will be required.

The subject of auditing will also receive much attention, the purpose of the audit, the scope, the methods of procedure, and the elements which make for success or failure. The course includes drills in the preparation of clear and lucid reports, statements and schedules, and also include lectures on the history of accounting.

* Given in Evening School 1911-12.

Political Science

1, 2, 3. GOVERNMENT, FEDERAL AND STATE

PROFESSOR THORPE

Three Terms; 2 credits each term

The development of government in America. Charters and grants. Colonial organization. Formation of the United States of America. The civil organization: State, Federal. Administration. Text-book, lectures, assigned readings, and reports.

4, 5, 6. MUNICIPAL GOVERNMENT; CITIZENSHIP

PROFESSOR THORPE

Three Terms; 2 credits each term

The municipality a corporation. Organization and administration. Municipal functions. City charters. Initiative, referendum, recall. Government by commission.

American citizenship. Status of the family. Naturalization. Civil and political rights. Expatriation. Party organization, the caucus, the suffrage. Text-book, lectures, readings, and reports.

*9, 10. COMPARATIVE GOVERNMENT

PROFESSOR THORPE

Fall and Winter Terms; 2 credits each term

A comparative study of the leading governments of the world. Text-book, lectures, and assigned readings.

12, 13. AMERICAN CONSTITUTIONAL LAW

PROFESSOR THORPE

Fall and Winter Terms; 2 credits each term

The principles of constitutional law in America; the formation of constitutional law; the interpretation of constitutional law. The Constitution of the United States. Lectures, readings, and reports.

*15, 16. COMPARATIVE CONSTITUTIONAL LAW

PROFESSOR THORPE

Fall and Winter Terms; 2 credits each term

The origin, adoption, development and interpretation of the constitutions of the States. Lectures, readings, and reports.

18. AMERICAN DIPLOMACY

PROFESSOR THORPE

Spring Term; 2 credits

Historical study of the relations of the United States with foreign nations. Organization of the State Department. Diplomatic service. The treaty-making power. Monroe, Calvo, and Drago doctrines. The "open door" in the Far East. Relation of the United States to the debtor American nations. Rise of the United States to the position of a world power. Lectures, required readings, and reports.

* Not given 1911-12

20. INTERNATIONAL LAW

PROFESSOR THORPE

Spring Term; 3 credits

Historical development. Sources and authority of international law. The part played by the United States in its development. The law of peace, of neutrality, and of war. Blockade and contraband. The Hague Tribunal. The outlook for extension of international law. Text-book, lectures, assigned readings, and case reports.

22. CONFERENCE AND SEMINAR

PROFESSOR THORPE

Critical study of documents, materials and sources relating to the development of government in America. Open to persons qualified to pursue investigation.

1. EVOLUTION

Sociology

ASSISTANT PROFESSOR CRAFER

Fall Term; 2 credits

A critical study will be made of Darwin's "Descent of Man", and the recent studies that have been made in variation, heredity, and evolution, and their application to race problems. The modern interest in Eugenics and the contributions of Galton and Pearson. Text-books: Darwin's *Descent of Man*, Locke's *Variation, Evolution, and Heredity*. Lectures and reports.

2. RACE DEVELOPMENT

ASSISTANT PROFESSOR CRAFER

Winter Term; 2 credits

A study of the human race and its divisions, with special reference to the sciences of anthropology and ethnology. Ethnic groups, language, the early family, marriage, social life and customs, and other factors which enter into race development. Colonial policies of England, France and Germany and their effects on native races. Collateral readings, lectures, and reports.

3. RACE PROBLEMS IN THE UNITED STATES

ASSISTANT PROFESSOR CRAFER

Spring Term; 2 credits

In this course, special attention is given to race problems in the United States, the negro, his distribution and progress, the Indian, the Asiatic, the new Hindu immigration and its problem. A study of the immigrants now coming to the United States and their probable effect on American social life. Lectures and reports.

4. THEORY OF SOCIOLOGY

ASSISTANT PROFESSOR CRAFER

Fall Term; 2 credits

A study will be made of the development of Sociology, its importance and place in the social sciences, and of the underlying biological,

physical, and psychical factors in Sociology. Theory and methods of the science of statistics, with special application to the study of social life. Lectures and reports. Text-book; Ross, *Foundations of Sociology*.

5. SOCIAL PROBLEMS

ASSISTANT PROFESSOR CRAFER

Winter Term; 2 credits

Sociology and its application to modern social conditions. The evolution and problems of the family, marriage, divorce, social diseases, population, age, sex, births. The evolution of custom, morals, laws and beliefs. An intensive study of sociological forces now effecting modern society. Text-book: Henderson's *Social Elements*. Lectures and reports.

6. CRITICAL SOCIOLOGY

ASSISTANT PROFESSOR CRAFER

Spring Term; 2 credits

A critical study will be made of the main contributions to sociological thought. Special attention will be given to American sociologists, including Ward, Giddings, Small, and Ross. The laws of progress as outlined by the various writers will be considered and discussed. Text-book, lectures, and reports.

7, 8, 9. SOCIAL ECONOMY

ASSISTANT PROFESSOR CRAFER

Three Terms; 2 credits each term

Problems of the dependent, defective, and delinquent. A study of charity, the pauper, the insane, the feeble-minded, and the dependent child; the best method of dealing with them. Problems of crime: the criminal, jails, prisons, reformatories. A study of the preventive and educational measures now developing for the betterment of social conditions. Trips will be made to organizations and institutions in Pittsburgh and vicinity. This course is designed especially for students intending to go into social and philanthropic work, the ministry, and the foreign field, and for those who desire a first-hand knowledge of social conditions. Lectures, collateral readings, visits, and text-book: Henderson's *Defective, Dependent, and Delinquent Classes*.

10, 11, 12. RESEARCH IN SOCIAL ECONOMY

ASSISTANT PROFESSOR CRAFER

Three Terms; 2 credits each term

Original research work in the field of social economy. Each year some specific social problem in the city of Pittsburgh will be intensively investigated. This course is open only to those undergraduates doing superior work in Sociology 7, and to graduate students.

English Language and Literature

1, 2, 3. COMPOSITION

MESSRS. FISH, _____ AND OGBURN

Fall, Winter, and Spring Terms, each 3 credits

A study of the principles of composition, with exercises in the analysis of prose selections, practice in writing, and criticism.

Required of Freshmen.

7, 8. ARGUMENTATION AND DEBATING

MR. FISH

Fall and Winter Terms, each 3 credits

The theory of argumentation, with practical exercises in brief-drawing and the composition and delivery of forensics.

Required of Sophomores.

15. ENGLISH LITERATURE

PROFESSOR GIBBS

Fall, Winter, and Spring Terms, each 3 credits

A study of selected masterpieces representing the successive periods of English literature, with a text-book to furnish a historical background and connections.

Elective for Juniors and Seniors.

16. AMERICAN LITERATURE

PROFESSOR GIBBS

Spring Term, 3 credits

The development of literature in America, with readings from representative authors, especially Irving, Emerson, Hawthorne, Lowell, Longfellow, and Poe.

Required of Sophomores.

17, 18, 19. THE DRAMA AND SHAKESPEARE

PROFESSOR GIBBS

Fall, Winter and Spring Terms, each 3 credits

A study of Shakespeare's development in technique and the treatment of character, with some attention to the more important plays of Llyly, Kyd, Marlowe, Ben Jonson, Beaumont and Fletcher, and Webster. Readings, lectures, and class discussions constitute the method.

Elective for students who have taken Courses 15 and 16, or an equivalent.

1, 2, 3. PUBLIC SPEAKING

MR. FISH

Spring Term (Freshman year), Fall and

Winter Terms (Sophomore year), 2 credits

Exercises in the fundamentals of public address. Individual instruction in small classes.

Required of all Freshmen.

7. PUBLIC SPEAKING

MR. FISH

Winter Term, 2 credits

A course in the theory and practice of oratory. The student is taught the principles of preparing and delivering the occasional formal address. This work is designed as a groundwork for Course 8.

Elective for those who have taken English 1, 2, 3, and Public Speaking 1, 2, 3.

8. PUBLIC SPEAKING

MR. FISH

Spring Term, 2 credits

An advanced course in platform speaking. The instruction is designed to meet a practical need. Students are taught the demands of the various forms of public address—such as the after-dinner speech, the commemorative address, the eulogy, etc.

Required of Sophomores.

German Language and Literature

PROFESSOR BERGER

1, 2, 3. ELEMENTARY GERMAN

Fall, Winter and Spring Terms, 3 credits each term

Elements of grammar and the reading of easy texts. Vos, *Essentials of German*; Hewitt's *German Reader*; Simple lyrics and ballads memorized. Gerstäcker, *Germelhausen*; Baumbach, *Der Schwiegersohn*.

Open to Freshmen who have satisfied requirements for admission by offering French or Latin if they wish to take up German as the required modern language.

4, 5, 6. INTERMEDIATE COURSE

Fall, Winter and Spring Terms, 3 credits each term

Review of Grammar. Drill in translating from English into German and practice in conversation. Memorizing of simple prose and poetry. Wesselhöft: *German Exercises*. Wenckebach: *German Composition*. Wildenbruch: *Das edle Blut*. Sudermann: *Frau Sorge*. Roth: "Ein Nordischer Held." Hatfield: *German Lyrics and Ballads*.

Classical German Authors. Selections from the following lists of texts: Schiller: *Maria Stuart*. Goethe: *Hermann und Dorothea*; Lessing: *Minna von Barnhelm*. German is used extensively in conducting class-work.

Required of all Freshmen satisfying entrance requirements in German who elect to continue it.

7, 8, 9. COMMERCIAL GERMAN

Fall, Winter and Spring Terms, 3 credits each term

Syntax. Prose Composition, conversation. Freytag: *Soll und Haben, Aus dem Jahrhundert des grossen Krieges*. Fulda: *Der Dummkopf*. Whitefield and Kaiser: *A Course of Commercial German*.

Required of all Sophomores in the School of Economics, who elect German in Freshman year, having satisfied entrance requirements in this language. Elective for students who have taken previous courses.

23. GERMAN LIFE AND MANNERS

Three Terms, 2 credits each term

This course presents the life, character, history and customs of the German people, treats of their present and past states of culture, the geography of the new empire, places of interest, and other subjects of interest from human and humanistic standpoints. Texts: *German Daily Life, Germany and the Germans, Willkommen in Deutschland, Drei Wochen in Deutschland*.

Romance Languages and Literatures.

PROFESSOR HARRY; MR. _____

1, 2, 3. ELEMENTARY FRENCH

Fall, Winter and Spring Terms, 3 credits each term

Fraser and Squair's Grammar. Composition and easy reading, with thorough drill in pronunciation and practice in speaking.

Open to Freshmen who have satisfied requirements for admission by offering German or Latin, if they wish to pursue French as the required modern language.

4, 5. INTERMEDIATE FRENCH

Fall and Winter Terms, 3 credits each term

Extensive reading in selected works of Modern French writers. Fraser and Squair's Grammar completed. Advanced prose composition. French conversation. The following texts are read: Daudet, *Contes Choisis*; Maupassant, *Contes*; About, *Le Roi des Montagnes*; Coppée, *On Rend l'Argent*; Augier, *Le Gendre de M. Poirier*; George Sand, *La Mare au Diable*; Canfield's French Lyrics.

Required of all Freshmen satisfying entrance requirements in French who elect to continue it.

21. COMMERCIAL FRENCH

Spring Term, 3 credits

This course is designed for students of the School of Economics who have a good reading knowledge of French prose of ordinary diffi-

culty. The vocabulary of the commercial world is emphasized. Periodicals dealing with commerce, industry and finance will be largely used. Commercial correspondence.

Pre-requisite: Courses 4, 5.

30, 31, 32. ELEMENTARY SPANISH

Fall, Winter and Spring Terms, 3 credits each term

Hill's and Ford's *Spanish Grammar*, reading, composition, conversation. Bransby's *Spanish Reader*, Selgas, *La Mariposa Blanca*; Galdos, *Dona Perfecta*; Tamayo, *Lo Positivo*; Giese's *Spanish Anecdotes*.

33, 34. SPANISH CLASSICS

Fall, Winter and Spring Terms, 3 credits each term

Cervantes, *Don Quixote*; Lope de Vega, Calderon. Fitz-Maurice-Kelly, *History of Spanish Literature*.

35, 36, 37. COMMERCIAL SPANISH

Fall, Winter and Spring Terms, 3 credits each term

Reading of commercial Spanish. Commercial correspondence. Conversation. The vocabulary of every day life is emphasized.

40, 41, 42. ELEMENTARY ITALIAN

MR. MUSSO Fall, Winter and Spring Terms, 3 credits each term

Elementary grammar, dictation, reading, memorizing, conversation, and easy composition. Motti's *Elementary Italian Grammar*. Cattaneo, *Italian Reader*. DeAmicis, *Cuore*. Other selections from modern authors will be assigned by the instructor.

43, 44, 45. ITALIAN, INTERMEDIATE COURSE

MR. MUSSO Fall, Winter and Spring Terms, 3 credits each term

Study of Italian Grammar in Italian. Conversation and advanced prose composition. Italian literature of the XVIII and XIX centuries. Selected readings and brief lectures in Italian. Manzoni, *I Promessi Sposi*, will be read in full.

Open to students who have taken the course in Elementary Italian.

History.

PROFESSOR DYESS.

3, 4, 5. EUROPEAN HISTORY

Fall, Winter, Spring Terms, 3 credits each term

The course covers the period from the Renaissance to the present time. Special attention is given to the development of civilization; to the growth in institutional liberty; to the changes produced by economic causes. Required in the Freshman Year.

6, 7, 8. THE POLITICAL AND CONSTITUTIONAL HISTORY OF THE UNITED STATES Fall, Winter, Spring Terms, 3 credits each term

The course covers the history of the United States under the Constitution. The great question of the organization and consolidation of the Government, the growth of Democracy and Nationality, and Reconstruction are thoroughly considered.

Required in the Sophomore Year.

9, 10, 11. HISTORY OF ENGLAND

Fall, Winter, Spring Terms, 3 credits each term

The course covers the period from the Anglo-Saxon invasion to the nineteenth century. Stress is laid upon the growth of liberty, the characteristics of the British Constitution, and the development of the Empire. Courses 1 and 2 are pre-requisite to this course. Text-book and lectures.

Elective for Juniors and Seniors.

12. HISTORY OF FRANCE

Fall Term, 2 credits

This course is meant to trace the history of the growth of the French nation from the beginning of the Frankish monarchy to the French Revolution. Special attention is given to the development of civilization and to the influence of France in this respect upon Europe and the world.

Courses 1 and 2 are pre-requisite to this course. Text-book and lectures. Elective for Seniors and Juniors.

13. THE FRENCH REVOLUTION AND NAPOLEONIC PERIOD

Winter Term, 2 credits, 2 hours

The course of the French Revolution and the career of the great Napoleon are briefly considered, with special reference to their influence upon the Europe of today.

14. HISTORY OF THE NINETEENTH CENTURY IN EUROPE

Spring Term, 2 credits

The course includes the political history of Europe from the French Revolution to the present time. Special attention is given to the Unification of Germany and Italy. Themes are required upon the most important events. Courses 12 and 13 are pre-requisite. Text-book and Elective for Seniors.

15. THE GROWTH OF THE BRITISH EMPIRE

Fall Term, 2 credits

A study of the growth, development and present condition of the British Empire, and constitutional problems resulting therefrom. Courses 9, 10, and 11 are pre-requisite.

16, 17. GERMAN HISTORY IN 18TH AND 19TH CENTURIES

Winter and Spring Terms, 2 credits each term

A detailed study of the rise of Prussia, the reign of Frederick the Great, the War of Liberation, the career of Bismarck and the beginning of the German Empire.

Psychology.

PROFESSOR WHITE

1, 2, 3. GENERAL PSYCHOLOGY

Fall, Winter and Spring Terms, 3 credits each term

An introductory course designed to give a general survey of the whole field of Psychology so as to serve as a part of a liberal education, and as a preparation for more advanced work in Psychology and other subjects which deal primarily with the phenomena of mental life. The work of the Fall, Winter and Spring Terms forms a continuous course. The work is supplemented throughout by demonstrations and experiments before the class.

An additional hour's work may be arranged, the time being devoted to free discussion and supplementary reading on the topics of the main course.

8. SOCIAL PSYCHOLOGY

Fall Term, 3 credits

A course dealing with the individual differences of character and intelligence, their causes and their practical significance in life; commonality; the individual and society; suggestion and choice, fashions, custom, conventionality, imitation, communication, competition, and co-operation, the psychology of advertising, the psychology of the gang, the crowd, the mob, the audience, etc.

13. GENERAL PSYCHOLOGY FOR TECHNICAL STUDENTS

One Term, 3 credits

This is an introduction to the study of human nature and the psychical forces behind material progress. Emphasis will be placed upon such problems as individual differences of character and intelligence, their causes and significance; the fundamental instincts, imitation, competition, co-operation; the many social relationships, suggestion, habit, memory, constructive imagination, the emotions, reason, will, etc.

Philosophy.

1. ETHICS

PROFESSOR LINHART

Winter Term, 3 credits

A study of theoretical and practical Ethics based upon Dewey and Tuft's *Ethics*, with lectures on the field of Ethics and class-room discussions on present-day ethical questions.

Required in the Junior Year.

3. LOGIC

PROFESSOR SHAFER

Spring Term, 3 credits

An introductory study of the general character of the thinking process, its laws of development and the methods by which thought actually proceeds to solve the problems presented to it. The course includes some practice in reasoning, the inductive and deductive methods and in the detecting of fallacies, and some study of the principles of scientific method.

Text-book: Creighton, *Introductory Logic*.

Required in the Junior Year.

4. HISTORY OF PHILOSOPHY—ANCIENT PHILOSOPHY

PROFESSOR SHAFER

Fall Term, 3 credits

The courses in the History of Philosophy aim to trace the history of thought, the development of the principal philosophical conceptions and systems, and their relations to the sciences, to literature and to the social and political conditions. Emphasis is placed throughout upon a first-hand acquaintance with the writings of the persons who have most influenced the thinking of mankind. The course covers the period from the Ionian Schools to the Neo-Platonists.

Text, Weber's *History of Philosophy*. Reference books: Bakewell, *Source Book in Ancient Philosophy*. Zeller, Burnet.

5. 6. HISTORY OF PHILOSOPHY—MODERN PHILOSOPHY

PROFESSOR SHAFER

Winter and Spring Terms, 3 credits each term

These courses follow Course 4 and cover the modern period. Considerable time during the latter part of the year will be given to a study of the speculative problems of the present time, and especially to an examination of the origin and development of the conceptions of evolution together with its social and ethical bearings.

Weber's *History of Philosophy*. Reference books: Rand, *Modern Classical Philosophers*. Falckenberg, Windelband, Royce.

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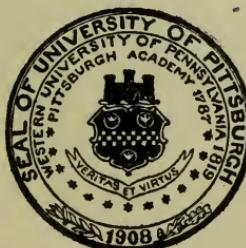
University of Pittsburgh

BULLETIN

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OF THE
UNIVERSITY OF ILLINOIS

Evening School of Economics, Accounts and Finance

1911 - 1912



Entered June 4, 1910 at the Post Office at Pittsburgh, Pa., as second class
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EVENING SCHOOL OF ECONOMICS, ACCOUNTS AND FINANCE

Calendar

1911

September 25 Monday Fall Term begins
November 30- } Thursday, Friday Thanksgiving Recess
December 1 } December 18 to January 2.

1912

January 2 Tuesday Winter Term begins
February 22 Thursday, Holiday Washington's Birthday
Spring Vacation from March 25 to April 1.

April 1 Spring Term begins
April 5 Friday Holiday, Good Friday
May 27-June 1 Monday to Saturday Final Examination
June 9 Sunday Baccalaureate Sermon
June 12 Wednesday Commencement

OFFICES AND OFFICE HOURS.

General Office, School of Mines Building; Telephone, Schenley 2500
Office of School of Economics, 204 Thaw Hall; Telephone, Schenley 2500

Both offices are open during the summer vacation, Monday-Friday
from 9 A. M. to 5 P. M., and on Saturday from 9 A. M. to 12 M. Students
should register on or before September 25th.

INFORMATION.

For printed information concerning the Evening School of Economics,
Accounts, and Finance apply to S. B. Linhart, Secretary of the University,
School of Mines Building, Grant Boulevard, Pittsburgh.

FACULTY.

SAMUEL BLACK MCCORMICK, D.D., LL.D., CHANCELLOR OF THE UNIVERSITY.
JOHN THOM HOLDSWORTH, PH.D., Dean, Professor of Finance and Economics.
JOSEPH ALBERT BECK, B.S., LL.B., Professor of Political Economy.
FRANK WILBUR MAIN, C.P.A., Instructor in Accounting.
JOSEPH ROYER CONRAD, Instructor in Law and Insurance.
THOMAS W. B. CRAFER, PH.D., Instructor in Economics and Sociology.
WILLIAM ROBERT MAIN, A.B., Instructor in Accounting.
CHARLES FRISBIE CHUBB, PH.D., Instructor in Real Estate.
IRA GRAESSLE FLOCKER, A.M., Instructor in Industry and Accounting.
_____, Instructor in Journalism.
_____, Instructor in Business English.

GENERAL STATEMENT

The Evening School of Economics, Accounts and Finance of the University of Pittsburgh was founded in the year 1908 in response to a widespread demand from energetic and ambitious men for University instruction helpful in the business and industrial world. For those men who are able to take a college course, the University offers the four years' course in the School of Economics leading to the degree of Bachelor of Science in Economics.

The Evening School meets the needs of those men who are unable to take a college course, but who realize the importance and necessity of education in order to increase their efficiency. The School also meets the needs of those who desire to supplement their college training by a study of the organization and administration of business.

The courses which are offered are distinctly practical. They are intended to increase efficiency by giving breadth of view, grasp of principles, and increased power to reason. At the same time the work is so specialized as to be an invaluable training in each student's particular line of work.

In no sense are these courses a duplication of the work offered by high-schools, preparatory schools, or university-extension lectures, but are similar to courses offered in connection with the regular work of the University, and are intended for students who are thoroughly in earnest.

The purpose of this School is to train men for
Accounting,
Public Accounting,
Manufacturing Management,
Mercantile Business,
Stock, Bond, and Produce Brokerage,
Real Estate Brokerage,
Railroad Management,
Insurance,
Banking.

JOURNALISM.

In response to the demand for training for newspaper and journalistic work, a course in Journalism is offered. The course will be given this year in the Evening School in order that men engaged in newspaper work during the day may take advantage of the instruction. A trained newspaper editor will be in charge of the course and he will be aided by a corps of editors and managers of newspapers, magazines, and trade journals.

ENTRANCE REQUIREMENTS

The qualifications of each applicant will be passed upon separately. In general an applicant for a certificate or diploma of proficiency should have as his qualifications the equivalent of a high-school education. If such an applicant cannot present these qualifications, he may be admitted as a special student, and on the satisfactory completion of one year's work may be admitted to regular standing.

REGULAR STUDENTS

A regular student will register for three courses each year for four years or for four courses each year for three years. Upon the satisfactory completion of twelve courses a certificate of proficiency in the nature of a diploma will be granted.

A regular first-year student will register for the courses Accounting I and Business Law I; also for either General Economics or Money and Banking, or both.

SPECIAL STUDENTS

Students who wish to register for less work than the regularly prescribed course, and who meet the requirements for the course they desire to take, may be admitted at the discretion of the faculty. Those who decide later to become candidates for the certificate of proficiency will receive credit for whatever work they have done as special students.

TUITION.

The annual tuition for three courses is fifty (50) dollars, for four courses sixty-five (65) dollars, payable in advance, one-half at the time of enrolling, the balance on February 1.

The fee for a special student for one course is \$20.00, payable in advance, one-half at the time of enrolling, the balance on February 1.

METHOD OF INSTRUCTION

Each course will be given one evening a week from 7:45 to 9:45 for thirty-six weeks.

The method of instruction will vary somewhat with the course, but, in general, each will be in large part a lecture course with such quizzes and reports as are found desirable. Effort will be made to use some

recognized treatise as a foundation for the work and when that is not possible, synopses of the lectures will be furnished the students at cost price. Without work outside of the class-room, it will be impossible for a student to do satisfactorily the work of a course.

SCHEDULE OF COURSES

- Accounting 1. Principles of Accounting, Friday.
- Accounting 2. Practical Accounting, Tuesday.
- Accounting 3. Practical Problems and Auditing, Thursday.
- Accounting 4. Cost Systems. Friday.
- Business Law 1. Monday.
- Business Law 2. Wednesday.
- Business Law 3. Monday.
- General Economics, Wednesday.
- Money and Banking, Thursday.
- Corporation Finance and Investments, Tuesday.
- Insurance. Tuesday.
- Real Estate and Property Insurance. Friday.
- Marketing of Products.
- Transportation. (To be arranged).
- Industrial Management.
- Journalism. Monday.
- Business English. (To be arranged).

Description of Courses

ACCOUNTING I. PRINCIPLES OF ACCOUNTING

This course is of importance not only to the student preparing to become a certified public accountant but also to one intending to enter upon a business career.

Without considering elementary bookkeeping, a thorough drill in the Theory of Accounts is given, the course consisting of lectures, quizzes, and much practical, illustrative work.

Studies are made of the changes from single to double entry, from sole proprietor to partnership, and from partnership to corporation. Special studies also are made of the inventory, the classification of accounts, columnar books, controlling accounts, and stock records. Consideration is given to the preparation of Balance Sheets, Trading, Operating and Profit and Loss Accounts, and general accounting procedure.

During the later part of the year, Insolvency and Fiduciary Accounts are taken up, special attention being given to the preparation of the Statement of Affairs, the Deficiency Accounts, Realization and Liquidation, and Trustees' Cash Accounts.

The applicant for this course must be familiar with the different accounts in use and the principles of double-entry bookkeeping, the fundamental principles of debits and credits, the closing of books, the opening of a simple Profit and Loss Account, and the adjustment of the several accounts.

PREPARATORY COURSE.

For those who have not had sufficient training or experience to take up the advanced work in Accounting, a preliminary course in Book-keeping is given, for which work the student receives no credit.

ACCOUNTING 2. PRACTICAL ACCOUNTING

The purpose of this course is to apply the principles learned in Accounting 1 to particular lines of business. To this end the accounting systems and methods in use in various classes of business are specifically studied and modern scientific labor-saving methods contrasted with the cumbersome, antiquated systems in use in many business houses.

The accounts of Banks, Insurance Companies, Electric-Lighting Companies, and Railroads are taken up, together with those of other lines.

The course consists of lectures, class drills and much practical work.

This course is open only to students who have done the work covered in Accounting 1.

ACCOUNTING 3. PRACTICAL PROBLEMS AND AUDITING

This course consists of advanced work and is intended for those planning to take the state examinations for the degree of Certified Public Accountant, or in other words, for those expecting to practice accounting as a profession.

A thorough drill is given in the consideration and analysis of practical problems, the questions being taken largely from the questions as given at the examinations of the different states, and much practical work is required.

The subject of Auditing also receives much attention, the purposes of the audit, the scope, the methods of procedure and the elements which make for success or failure in the conduct of the same being particularly considered. Drills in the preparation of clear and lucid reports, statements, and schedules are included in this work.

This course is supplemented by lectures given by Certified Public Accountants and other accounting specialists.

This course is open only to students who have done the work covered in Accounting 1 and 2.

ACCOUNTING 4. COST SYSTEMS

This course includes both the theory of Cost Accounting and its practical application.

Under the head of the theory, lectures are given on the basic principles of Cost Accounting, on its advantages in the determination of prices and the reduction of production costs, on the treatment of overhead expenses, on the preparation of comparative effective financial statements, and on the labor-saving devices and methods now in use.

In connection with these lectures the cost systems of typical manufacturing plants is taken up and thoroughly explained, practical illustrative work being required of the students at the same time, to the end that the important underlying principles may be thoroughly grasped and understood.

This Course is supplemented with talks and lectures by Factory Experts, who take up particular phases of Cost Accounting for the benefit of the students.

BUSINESS LAW I.

This course is the first of a series of three which give the student a general understanding of the fundamental principles of the Law and a detailed knowledge of those branches of it which have most frequent application in business life. This course includes the law of Contracts, Negotiable Instruments, Agency, Bankruptcy and Insolvency. As a part of the law of Contracts the following topics are studied: Formation of Contracts, embracing offer and acceptance, consideration, capacity of parties, and legality of object; Operation of Contracts, embracing the rights and duties of the parties to a contract and the assignment thereof; Interpretation of Contracts; Termination of Contracts, embracing the discharge of contracts by the voluntary act of both parties, by a breach of its terms, or by the act and operation of law. A special feature of this course is the drafting of such contracts as are in common use. Negotiable instruments are considered under the following topics: Essentials, construction, capacity of parties, rights and liabilities of maker or drawer, endorser, payee, acceptor, and holder, in due course. The foundation of the course in Negotiable Instruments is the Uniform Negotiable, Instrument Act, as adopted in Pennsylvania. There will follow a study of the relation of Principal and Agent. The remainder of the course is devoted to the study of the law of Bankruptcy and Insolvency, including the law relating to Fraudulent Debtors.

BUSINESS LAW 2.

The second year's course in Business Law includes the law of Persons, Surety and Guaranty, Partnerships and Corporations. Under the law of Persons the peculiar legal rights and liabilities of Infants, Mar-

ried Women and Persons Mentally Incapacitated, are considered. The study of Partnerships includes the law relating to common law partnerships and also to special partnerships, partnership associations, and joint-stock companies existing under special statutes. In the study of Corporations, time is devoted to a discussion of the nature of corporations, the manner of their formation and creation, their powers and duties, their organization, powers and duties and liabilities of officers, directors, and other agents, the issue and retirement of corporate securities and the rights and liabilities of the holders thereof, the methods of corporation government, merger, consolidation and dissolution of corporations, foreign corporations, voting trusts, holding companies, and the relation of corporations to the state.

BUSINESS LAW 3.

The third year's course includes the law of Bailments and Sales of Personal Property, Real Property, Landlord and Tenant Trusts, Liens, Decedent's Estates and Constitutional Law. Under Real Property are studied the various kinds of estates in real property and the titles by which they are held, the manner of acquiring and disposing of them, deeds and other instruments of conveyance and their recording, mortgages. In studying Decedent's Estates, there is considered the appointment, powers, duties and accounts of executors, administrators, guardians and trustees, creditors' claims, the distribution of the assets and surpluses of estates by will or under the provisions of the interstate law. Four lectures at the end of the course are devoted to Constitutional Law.

GENERAL ECONOMICS

This course includes a consideration of the fundamental concepts of political economy which are pre-requisite to any advanced work in economics. The nature of the science of political economy. Definitions of the terms. The theory of political economy, including the theory of value, production, consumption and distribution. Factors of production. Shares of distribution.

The present day problems of economics are considered and an application of economic theory to the settlement of these problems is made. The problems of wages, labor-unions, trusts and monopolies, protective tariff, interest, usury, taxation, immigration, socialism, single tax, and social-reform legislation.

MONEY AND BANKING

Historical and theoretical study of the principles of money and credit. Evolution of money. Functions of money. The monetary system of the United States. Fiat and credit money. Bimetallism.

Factors affecting supply and demand. Theory of prices. Price tables, Nature and uses of credit. Credit instruments. Relation of credit to prices. Domestic and foreign exchange.

The history and development of banking, with special reference to American experience. The national banking system. Organization and leading features, operations, departments and duties of officers and clerks, deposits, loans and discounts, collections, clearings, records and accounting systems, examinations, statements and reports, failures. Weakness of the reserve and circulation features. Proposed banking and currency reforms. The arguments for and against a central bank; savings-bank, trust companies, international banking. Foreign banking systems.

CORPORATION FINANCE AND INVESTMENTS

Types of business corporations. Charter, articles, by-laws. Stockholders' powers, rights and liabilities. The financial organization and management of corporations. The promoter and the underwriting syndicate. Capitalization. Provision of new capital. Receiverships and reorganizations. The marketing of securities. General characteristics and investment merits of railway, industrial, public-service, irrigation, and other types of securities. Organization of the investment business. A study of fluctuations in bond and stock prices to determine the influences acting upon security values. The organization and machinery of stock and produce exchanges. Margins and futures. The curb market. Wall Street. The broker and his work. The relations of the stock exchange to business and to the banks.

INSURANCE

This course is designed to give the student a practical knowledge of the origin, development, economic importance, and principles underlying insurance. Special attention is given to life insurance.

It embraces the fundamental principles common to all our present systems, including the mathematical problems involved, the work of the actuary, the valuation of policies, the calculation of reserves, the determination of rates and premiums, the several kind and types of policies, their legal effect, interpretation and construction; the investment of insurance funds; state regulation of insurance.

PROPERTY INSURANCE AND REAL ESTATE

A study of the features peculiar to the various branches of insurance, Life, Fire, Accident, Fraternal, Title, Plate Glass, Marine, Old-Age and Permanent Disability, Credit, etc.; the application of the general principles of each; the duties of the various officers and employes, such as inspectors, medical examiners, general and special agents, and executors.

The legal effect of their acts upon the rights and obligations of the parties to a policy.

A study of realty values; the changes in such values and the causes for such changes. The development of new and unimproved properties. Laying out of plans. Building restrictions. The valuation, proper location and management of office and apartment-house buildings. Brokers, their duties and obligations. The collection of rents. The drawing of deeds, mortgages and leases; the essentials thereof. Principles of the law of conveyancing, mortgages and landlord and tenant. Assessment and taxation of real estate. Title examination and title insurance.

These courses are supplemented by lectures upon various phases of insurance by men prominent in the insurance and realty world.

MARKETING OF PRODUCTS

The location and character of existing markets for American products. The location of the plant or industry with reference to these markets. Transportation facilities. General business conditions with respect to their relation to production. The determination of the character of the goods for the market to be reached. The preparation of the goods for the market, inspecting, grading, classifying. Warehousing and refrigerator plants. Medium of reaching the consumer, commission houses, brokers, jobbers, retailers, sales direct to the consumer. Produce markets and produce exchanges, their methods and practices, the functions performed by such exchanges, dealing in futures, corners. The marketing of mining and manufactured products. The dissemination of trade information. Principles of credit and operation of credit departments. Mercantile agencies. Consular reports. The development of foreign markets by the American producer. The increase in exports of American manufacturers, and the existing opportunities for American trade. An intensive study of the marketing of grain, iron, steel, coal, coke, gas, oil, glass, cotton, wool, meat, etc. The study of advertising and salesmanship from a practical standpoint; the psychology of advertising and salesmanship and the methods employed.

TRANSPORTATION

The origin and growth of the American railways. Their present ownership and control. The organization of the railway company, and how it does its work. Railway financing. The freight, passenger, express, and mail service. Railway abuses, Regulation by the States and by the Federal Government. The Inter-state Commerce Commission, Government ownership in the light of foreign experience. Railway rates and fares. Electric railway transportation. Ocean transportation. Ocean highways and seaboard terminals. The merchant marine. The question

of subsidies. The river, lake, and canal systems of the United States. The increasing importance of the inland waterways question.

INDUSTRIAL MANAGEMENT

A study of the leading American industries. Physiographic control, Sources and supply of raw material. Agricultural resources. Factors affecting the location of industry. Sources and application of power. Manufacturing methods and factors affecting cost of production. Large-scale *versus* small-scale production. Integration. Internal commerce and foreign trade.

Advantages of various methods of business organization and management. The internal management of the large business or plant and the differentiation of the duties of various departments. Profit-sharing schemes. Labor problems. Markets and methods of distribution.

JOURNALISM

The first portion of the course will embrace LECTURES ON THE THEORY AND METHODS OF THE NEWSPAPER AND PRACTICAL WORK IN NEWS COLLECTING AND NEWS WRITING. A comprehensive and practical description of the business of newspaper making—its aims and problems—will be given in the course of lectures, which will treat on news, news gathering, the work of the editor and the reporter, the history of journalism, and the evolution of the modern newspaper, the meaning and aims of journalism, the method of writing “the story,” yellow journalism, the decline of the power and force of the editorial and the supremacy of the presentation of the news, coloring the news, the newspaper and public opinion, etc. In connection with the practical work, attention will be given to the actual work of securing and writing news through exercise and assignments, particular stress being laid on vocabulary and style; interviewing, study of news form and news value; typography, proof-reading, etc. The work of the reporter will be considered in connection with the lectures of newspaper theory and methods. The student will be given, in brief, just the sort of work that would be assigned the beginner by the city editor, but the instructor will give, in addition, the guidance and suggestions, the whys and wherefores of the business, which no editor, in the course of his multiplicity of duties, has the time or patience to impart to the “cub” reporter.

The second portion of the course will embrace (first) LECTURES ON NEWSPAPER POLICY, ORGANIZATION and MANAGEMENT, NEWSPAPER ETHICS, THE DUTY OF THE NEWSPAPER TO THE PUBLIC IT SERVES and to SOCIETY, “COMMERCIAL” JOURNALISM and its LIMITATIONS; ADVERTISING AND THE ADVERTISER; CIRCULATION; HOW FAR SHOULD THE NEWSPAPER ENDEAVOR TO ENTERTAIN AS WELL AS IMPART INFORMATION, INCLUDING COMICS AND

HUMAN INTEREST FEATURES; THE SUNDAY NEWSPAPER; THE NEWSPAPER AND POLITICS, etc., and (second) NEWSPAPER PRACTICE. The aim in the lectures will be to hold up for analysis and criticism the very soul of the newspaper in its interrelation to society. Newspaper practice will consist of the organization of the students as the staff of a modern newspaper, each being assigned the particular position for which he proves himself qualified. The staff, thus organized, will be taken through the actual routine work including, in addition to news gathering and news writing, editing copy, reading copy, writing headlines, correcting proof and preparing all the details for issuing "an edition."

Lectures will be given at intervals during the course by the best, practical newspaper talent of the city, covering such subjects as advertising, newspaper policy, the Associated Press, editorial writing, circulation, etc. The class will be taken to visit different newspaper plants of the city in order to grasp more fully the practical side of the subject under consideration.

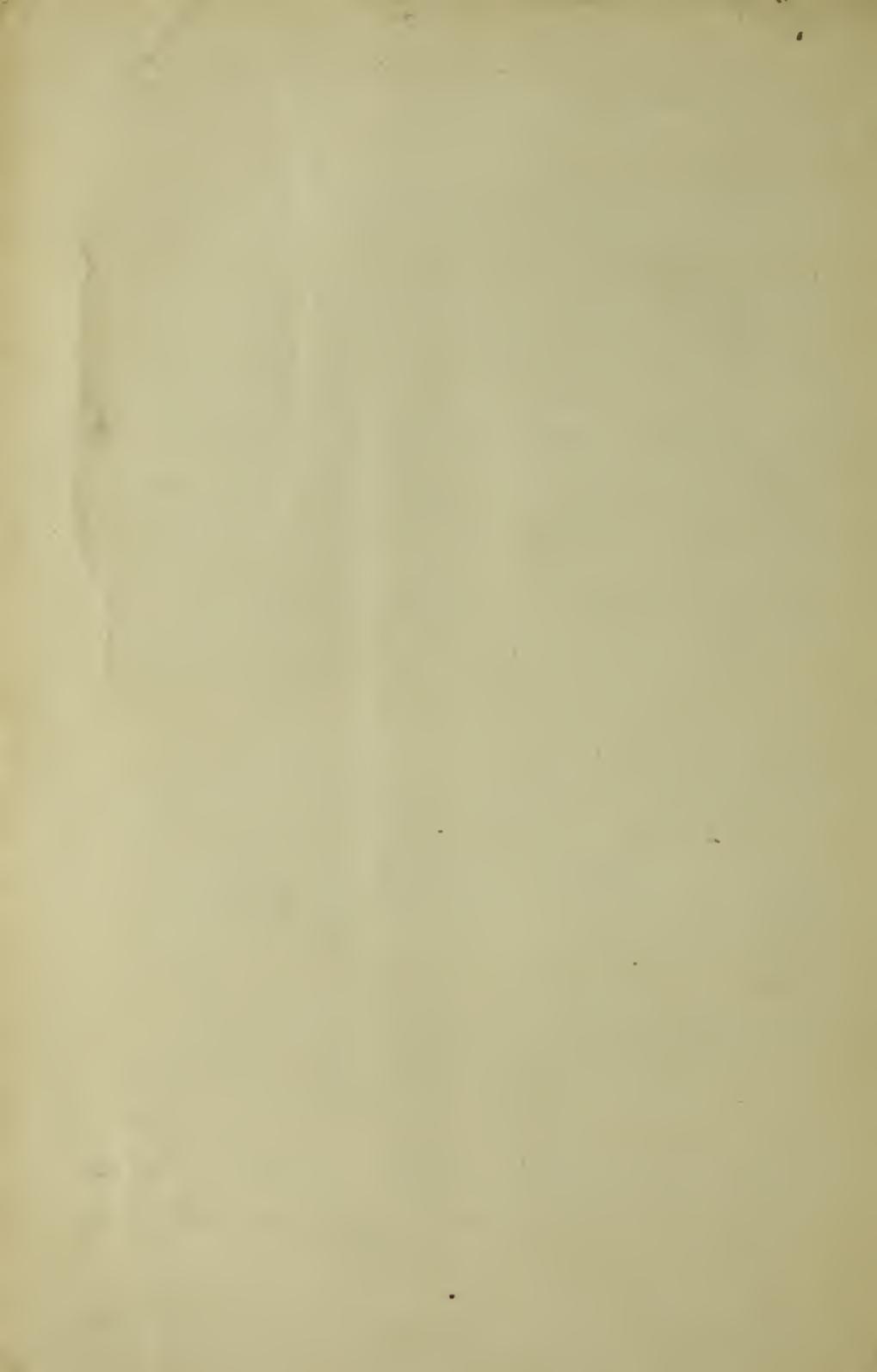
The first hour of the meeting of the class each week will be devoted to lecture and quiz and the second hour to practical work. Much of the practical work will necessarily have to be done outside the classroom and at such time and place as opportunity may warrant.

BUSINESS ENGLISH

The main object of this course is to drill students in the use of correct and forceful English for business purposes. The greater part of the course is devoted to the work of composition, especially in the various forms of business correspondence. Attention is given to selling and follow up letters, circulars, prospect uses, advertisements, etc. These are reviewed and criticised in class. The course is distinctly practical, though proper attention is given to the theory and principles of effective business English.

FOREIGN LANGUAGES

As the demand arises, courses will be given in the foreign languages most widely used in the business world: Commercial German, Commercial French, Commercial Spanish, and Esperanto.



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BULLETIN



The School of Economics

1912 - 1913

UNIVERSITY OF PITTSBURGH

BULLETIN



The School of Economics

1912 - 1913

SCHOOL OF ECONOMICS

CALENDAR

1912

September 26-28 Thursday to Saturday—Entrance Examinations and Registration.

September 30 Monday—Fall Term Begins.

November 28-30 Thanksgiving Recess.

December 21 Saturday—Fall Term ends.

Term vacation from Monday, December 23 to Saturday, January 4, 1913.

1913

January 6 Monday—Winter Term begins.

February 6 Thursday—Day of Prayer for Colleges.

March 21 Good Friday, a holiday.

March 29 Saturday—Winter Term ends.

Term vacation from Monday, March 31, to Saturday, April 5.

April 7 Monday—Spring Term begins.

May 30 Friday—Decoration Day, a holiday.

June 22 Sunday—Baccalaureate Sermon.

June 25 Wednesday—Commencement.

June 26-28 Thursday to Saturday, Entrance Examinations and Registration.

FACULTY

SAMUEL BLACK McCORMICK, D.D., LL.D., CHANCELLOR.

SAMUEL BLACK LINHART, A.M., D.D., SECRETARY of the University, Professor of Ethics.

ALBERT ELLIS FROST, A.M., Sc.D., REGISTRAR.

JOHN THOM HOLDSWORTH, Ph.D., DEAN, Professor of Finance and Economics.

GEORGE ALEXANDER McKALLIP DYESS, A.M., Ph.D., Professor of History.

FRANCIS NEWTON THORPE, Ph.D., LL.D., Professor of Political Science and Constitutional Law.

THOMAS W. B. CRAFER, Ph.D., Professor of Sociology.

IRA GRAESSLE FLOCKEN, A.M., Assistant Professor of Industry and Accounting.

_____, Instructor in Commerce.

JOSEPH ALBERT BECK, B.S., LL.B., Instructor in Economics and Law.

JOSEPH ROYER CONRAD, Instructor in Business Law.

FRANK WILBUR MAIN, C.P.A., Instructor in Accounting.

FERDINAND BERGER, A.M., Professor of the German Language and Literature.

JESSE HAYES WHITE, Ph.D., Professor of Psychology.

LINCOLN ROBINSON GIBBS, A.M., Professor of English.

PHILIP WARNER HARRY, Ph.D., Assistant Professor of Romance Languages

_____, A.B., Instructor in Public Speaking.

LAWRENCE WYLIE BURDICK, Ph.D., Instructor in German.

_____, Instructor in Romance Languages.

JOHN KEMERER MILLER, A.B., Instructor in English.

AARON MOYER SNYDER, Ph.D., Instructor in Psychology.

THOMAS REYNOLDS WILLIAMS, A.B., Instructor in Journalism.

CHARLES FRISBIE CHUBB, Ph.B., Instructor in Real Estate.

JAMES ORION MCLEAN, Assistant in Accounting.

JACOB EDWARD BOOBYER, Instructor in Fire Insurance.

LOUIS JAY HEATH, A.B., Instructor in English.

EDMUND GRANT HOWE, A.M., Instructor in History.

AIM AND SCOPE.

The School of Economics was established to meet the needs of young men who desire to secure a more definite and practical preparation for business careers than that afforded by the old-time general college course. The universities are providing increasingly thorough preparation for those who propose entering such professions as law, medicine, engineering, teaching and the ministry. Modern conditions demand of the young man who intends to engage in commercial, industrial, and financial pursuits equally thorough training and preparation. Just as the prospective lawyer or doctor is now obliged to secure preliminary training in the schools before engaging in active office practice, so must the young man who proposes to enter upon a business career get preliminary training in schools of commerce and business administration. There is no dearth of men who can fill mere clerical positions, but few are equipped for managerial responsibilities which require not only intelligence and energy, but broad understanding of the complex interrelations and problems of modern business.

The School of Economics aims to furnish mental discipline and broad, liberal culture, and at the same time to provide a thorough training in the fundamental principles of business, fitting young men for careers in Business Management, Banking and Finance, Accountancy, Railway Administration, Journalism, Social Service, Civic Work, the Consular Service and Foreign Trade. In these and other fields there is a strong demand for more efficient service, and young men looking forward to business pursuits are seeking the training that will give greater efficiency and lead to more rapid advancement. The young man who starts with a disciplined and well-informed mind, a general knowledge of the fundamental principles of business, and a special knowledge of certain branches of business will more quickly gain promotion from routine work to positions of trust and responsibility.

It is not contended for this kind of university training that it can take the place of actual business experience, but it will enable the man thus trained to turn subsequent experience to more efficient use. The School of Economics does not presume to create business genius, to give students the business judgment of mature men, or to create experts in any particular branch of business; it does aim, however, to assist the student to develop powers of analysis and interpretation necessary to sound judgment in business affairs, and to furnish him a solid groundwork of fundamental principles applicable to the business in which he may engage.

PUBLIC SERVICE.

In the public and government service, as well as in private enterprise, there is an increasing demand for specially trained men who combine technical knowledge with broad vision and grasp of business principles. Slowly the German idea of applying expert service and efficient management to municipal, state, and federal affairs is gaining ground in this country. New opportunities are opening up to the specially trained man in commissions and bureaus of various sorts, and in such semi-public organizations as boards of trade, chambers of commerce, bureaus of municipal research and efficiency, and other civic and commercial bodies.

SOCIAL AND PHILANTHROPIC WORK.

The increasing interest in civic and philanthropic activities calls for specially trained men and women to assume the leadership and direction of these movements. The School of Economics provides thorough training for social, philanthropic, settlement, and civic work. Students secure practical experience in various lines of social work through co-operation with the charitable and philanthropic organizations of the city.

CITIZENSHIP.

The School of Economics aims to provide the broadest possible preparation for citizenship. The rights, duties, and responsibilities of citizenship are inculcated not merely through the interpretation of forms, charters, constitutions and organizations of various forms of government,—the framework and machinery, but rather by contact with and analysis of live, present-day problems, particularly the problems of the city,—efficient municipal government, municipal taxation, housing, sanitation, recreation, fire prevention, protection of the water and milk supply,—in short, all those problems which effect every citizen in the modern municipality.

ACCOUNTANCY.

The profession of accountancy though comparatively new in this country has attained a rank and importance comparable with such older professions as law, medicine, or engineering. By reason of its high standard of social service, its increasing importance in the field of business administration, and its large financial rewards, it offers peculiar attractions to young men of special training and ability.

Business managers and owners must be in constant touch with every department of their organizations. To supply the necessary information the services of the accountant who can analyze and solve accounting and managerial problems is becoming more essential. "The accountant is expected to show the true cost of every product; to measure the efficiency of the men and machines employed; to trace the effects upon profits of new methods and inventions, and in all other ways to analyze

the business and measure accurately all its forces and factors." Because of his intimate and accurate knowledge of the administrative side of the business, the accountant has unusual opportunities to advance to a position of responsibility and trust. The stockholders and directors of corporations and business concerns, as well as the public, are depending more and more upon the public accountant to examine, audit, and interpret the books and records of the business. He must be equipped to render expert opinion and advice upon any phase of business activity.

To meet the need for this training special courses are prescribed for students who plan to enter upon the practice of private or public accountancy. The advanced courses are planned to meet the requirements of the State Board examinations for the degree of Certified Public Accountant. (C.P.A.)

Similar courses are offered in the Evening School of Economics, Accounts and Finance, for men actively employed in accounting and related pursuits.

PREPARATION FOR THE STUDY OF LAW.

The practice of law involves more and more the consideration and interpretation of questions arising out of the business world. Thorough training in the fundamentals of economic, political and social science and a knowledge of the processes and principles involved in business organization and management are becoming more essential for the successful practice of law. This training and information cannot be given in the law school; its function is to provide professional legal training. Many leading law schools now emphasize the importance of such pre-legal courses as are given in the School of Economics.

All prospective law students are urged to complete the full four years' course before entering the law school. The student who cannot afford seven years to prepare for his profession may combine the courses in the School of Economics and the School of Law and receive the two degrees in six years.

TEACHING OF COMMERCIAL SUBJECTS.

The demand for young men who have had broad collegiate training and have specialized in those subjects which will fit them to teach commercial branches in the secondary schools exceeds the supply. The successful teacher in the modern commercial high school or department must have more than an elementary knowledge of bookkeeping, stenography, typewriting, etc. He must have broad training in economics, commerce, industry, finance, and business organization and management, coupled with a clear understanding of the relation of technical subjects to the general science of business. The School of Economics affords the best possible preparation for the teaching of commercial subjects.

JOURNALISM.

Journalism has come to be recognized as a profession requiring equally thorough and specialized preparation as for other professions. No vocation offers larger opportunities for public service, and the financial returns are attractive to the man who has aptitude, ability and special training for journalistic work. There is an increasing demand for capable, trained reporters, special writers, correspondents, ad-writers, editors, in all departments of journalism. The multiplication of financial, technical and trade journals, and the issue of publications by private business concerns has caused a demand for well-trained men to fill editorial and managerial positions on such publications, and for men who can write intelligently and forcefully upon business subjects of general public interest.

The School of Economics aims to provide a broad and thorough training in those basic subjects a knowledge of which is essential to the highest success in this important profession,—English, foreign languages, history, economics, political science, public law, finance, industrial organization and management, sociology, philosophy, ethics, psychology. In addition certain professional courses are given by experienced newspaper men in the principles of journalism, news-gathering, reporting, news-writing, editorial writing, advertising, technical journalism, newspaper ethics, etc. Practice in the actual work of newspaper making will be obtained through the medium of the University student publications, assignments on city newspapers, and other journalistic activities.

CONSULAR SERVICE AND FOREIGN TRADE.

The School of Economics provides a course of training that will prepare the student not only for consular examinations but also for efficient work in the Consular Service and in business houses engaged in foreign trade. With the placing of the Consular Service upon a basis of competitive examinations, this field promises to offer increasing opportunities to young men of ability and special training.

The growing importance of our commercial relations with the Spanish-speaking republics and with the countries of the Orient, and the prospective trade development that will inevitably follow upon the completion of the Panama Canal offers most attractive business opportunities for young men with the proper training in the principles and methods of foreign trade and with command of the Spanish or Portuguese language or both.

FOREIGN COMMERCIAL LANGUAGES.

Students in the School of Economics are advised to specialize in those foreign languages most widely employed in foreign trade. Courses in Commercial German, Commercial French and Commercial Spanish provide a working knowledge of these languages for commercial purposes. The business methods and customs, trade reports, catalogs, and periodicals of foreign countries are studied and discussed in the language

of the country involved. Special attention is given to the acquisition of fluent and correct use of the foreign language both in conversation and in commercial correspondence.

As the demand arises similar instructions will be given in the languages of other European and Oriental countries.

COMMERCIAL ENGINEERING.

Students preparing for the management of certain lines of manufacturing and merchandizing may find it profitable to elect in the Junior and Senior years some work in Industrial Chemistry, Economic Botany, Economic Geology, Physics, Industrial Engineering, etc. In the profession of engineering there is a growing demand for men with more thorough business training, while in many lines of business some knowledge of engineering is invaluable. By arrangement with the College, the School of Engineering and the School of Mines, opportunity will be afforded Juniors and Seniors in the School of Economics to elect such courses as will give an insight into the engineering problems that confront contractors, superintendents and managers of manufacturing establishments, and others having to do with commercial engineering.

TWO YEARS OF PRESCRIBED WORK.

The first two years of the regular course in the School of Economics is uniform for all students. In these two years the student lays a thorough foundation for the more technical subjects which he elects in his Junior and Senior years to prepare him for his chosen life work. The man who upon entering college has not decided upon the line in which he will specialize may thus have some opportunity to test his ability and aptitude in the various lines offered by the School. It will be observed that while proper stress is laid upon such "cultural" studies as language, literature, and history, yet from the outset of his course the student is given instruction in those "practical" subjects which will provide him with a tool useful in every day business life.

PRACTICAL WORK.

In order that the students may obtain as much practical experience as possible in the lines of work for which they are preparing, the effort is made, through the Student Employment Bureau and otherwise, to help them secure suitable positions during the summer vacations. In this way every student will get nearly a year's practical business experience during the course of his four years at the University. It is hoped, eventually, to make this amount of practical experience a requirement for graduation from the School of Economics. This practical work will, of course, be of great assistance in helping the student to meet the expenses of his university course.

ADVANTAGE OF LOCATION.

Pittsburgh offers unusual advantages to the student who looks forward to a business career in any of the above-indicated lines. Its great

industrial, commercial, mercantile and financial establishments provide a laboratory of unsurpassed advantage. Regular visits of inspection are made to mills, factories, wholesale and retail stores, banks, brokerage offices, and other industrial, financial and commercial establishments. The sociology classes make visits to various charitable, penal, and corrective institutions to secure first hand information and insight into their problems and methods. The Chamber of Commerce has officially recognized the School as "an effective cooperative agency for forwarding the plans of the Chamber in matters of trade extension, as well as in the sociological and economic betterment of the community." The School of Economics aims to cooperate with every commercial, social and civic activity of the city, and to keep its work in line with their needs.

REQUIREMENTS FOR ADMISSION

All candidates for admission to the School of Economics must be at least sixteen years of age and furnish testimonials of good moral character. Those who come from other colleges must present certificates of regular dismissal.

METHODS OF ADMISSION

Admission is by one of the following methods:

1. EXAMINATION. Examinations are held at the University, beginning at 9 o'clock in the morning on the three days following the Commencement in June, and on the three days preceding the opening of the college year in September. For 1912 these dates fall on June 20, 21, and 22, and September 26, 27, and 28.

Certificates of the College Entrance Examination Board are accepted *in lieu* of the entrance examination at the University.

2. CERTIFICATE FROM ACCREDITED SCHOOLS. Instead of examination, certificates from high schools and academies whose work has been approved by the University, and whose courses prepare for the Freshman class will be accepted. The official blank certificate provided by the University must be used. It may be obtained, upon application, from the Registrar.

3. FROM OTHER COLLEGES. Students from other colleges, whose entrance requirements are equivalent to those of the University of Pittsburgh, and which offer equivalent courses of study, will be credited with the work they have done in such colleges, and admitted to advanced standing without examination.

ENTRANCE REQUIREMENTS

The students applying for admission must offer fifteen units, a unit being a subject in which the work done is the equivalent of four recitations per week of one hour each for one year, or five of three-quarters of an hour each.

All students must offer six units in the following subjects:

English *a*, 3 units.

Mathematics *a*, Algebra, 1 unit.

Mathematics *b*, Plane Geometry, 1 unit.

History *a, b, c, or d*, 1 unit.

The remaining nine units necessary to make the fifteen required may be offered from the following; four of these must be in language other than English and not more than two may be in history:

Latin *a, b, c, d*, 1 to 4 units.

Greek *a, b*, 1 to 2 units.

German *a, b, c*, 1 to 3 units.

French *a, b, c*, 1 to 3 units.

Mathematics *c*, Advanced Algebra, $\frac{1}{2}$ unit.

Mathematics *d*, Solid Geometry, $\frac{1}{2}$ unit.

Physics, 1 unit.

Chemistry, 1 unit.

History *b, c, d*, 1 unit.

English *b*, 1 unit.

Biology, 1 unit.

Drawing, 1 unit.

Physiography, $\frac{1}{2}$ unit.

Shop Work, 1 unit.

Advanced Languages, 1 unit.

Advanced History, 1 unit.

Advanced English, 1 unit.

EXPLANATION OF REQUIREMENTS FOR ADMISSION.

The following subjects are accepted for admission:

English Composition and Literature

Three units. The preparation should include the following subjects:

(1) GRAMMAR. It is expected that the applicant will be familiar with the essentials of English grammar, and will be able to explain the construction of sentences that occur in the literature he has read.

(2) COMPOSITION AND RHETORIC. The student should know the elementary principles of Rhetoric, and should be able to apply them in the construction of sentences and paragraphs, and in the planning of essays. The examination is chiefly practical, and involves the ability to write good English.

No student will be accepted whose paper is notably deficient in logical development of the subject, or in such details of form as spelling, punctuation, grammar, and division into paragraphs.

(3) LITERATURE. The books recommended are the Uniform College Entrance requirements in English. Other similar works will be accepted as equivalents.

The candidate is required to write one or more paragraphs on each of several subjects chosen from a considerably larger number given in the examination paper. The questions on all the books assume a knowledge of subject-matter and structure, but those on the books prescribed for study and practice call for more detailed treatment than those on books prescribed for reading.

A—The books prescribed for reading and practice are:

For students entering in 1912, 1913, and 1914;

Ten units, two from each of the following groups. Each unit is set off by semicolons.

Group 1. The Old Testament, including the most important narrative parts of Genesis, Exodus, Joshua, Judges, Samuel, Kings, and Daniel, together with the books of Ruth and Esther; the *Odyssey*, with the omission of Books I-V, XV-XVII; the *Iliad*, with the omission of Books XI, XIII-XV, XXI; Virgil's *Aeneid*. English translation of the *Odyssey*, the *Iliad*, and *Aeneid*, of acknowledged literary merit, must be used.

Additional units from Groups 2-5 may be substituted for the two units of this group.

Group 2. Shakespeare's *Julius Caesar*; *The Merchant of Venice*; *As You Like It*; *A Midsummer-Night's Dream*; *Twelfth Night*; *Henry V*.

Group 3. Goldsmith's *The Vicar of Wakefield*; either Scott's *Ivanhoe* or Scott's *Quentin Durward*; Hawthorne's *The House of the Seven Gables*; Thackeray's *Henry Esmond*; either Dickens' *A Tale of Two Cities* or Dickens' *David Copperfield*; Mrs. Gaskell's *Cranford*; George Eliot's *Silas Marner*; Stevenson's *Treasure Island*; Defoe's *Robinson Crusoe*, Part I.

Group 4. The de Coverley Papers in *The Spectator*; Franklin's *Autobiography*; Bunyan's *Pilgrim's Progress*, Part I; Irving's *Sketch-Book*; Macaulay's Essays on Clive and Hastings; Thackeray's *English Humorists*; selections from Lincoln, including at least two Inaugurals, the speeches in Independence Hall and at Gettysburg, the *Last Public Address*, and the *Letter to Horace Greeley*, together with a short memoir or esti-

mate; Parkman's *Oregon Trail*; Thoreau's *Walden*; Huxley's *Autobiography* and selections from *Lay Sermons*, including addresses on *Improving Natural Knowledge*, *A Liberal Education*, and *A Piece of Chalk*; Stevenson's *Inland Voyage* and *Travels with a Donkey*.

Group 5. Palgrave's *Golden Treasury* (First Series), Books II and III, with special attention to Dryden, Collins, Gray, Cowper, and Burns; Gray's *Elegy in a Country Churchyard* and Goldsmith's *The Deserted Village*; Coleridge's *The Ancient Mariner* and Lowell's *The Vision of Sir Launful*; Scott's *The Lady of the Lake*; Byron's *Childe Harold*, Canto IV, and *The Prisoner of Chillon*; Palgrave's *Golden Treasury* (First Series), Book IV, with special reference to Wordsworth, Keats, and Shelley; Poe's *The Raven*; Longfellow's *The Courtship of Miles Standish*, and Whittier's *Snow-Bound*; Macaulay's *Lays of Ancient Rome*, and Arnold's *Sohrab and Rustum*; Tennyson's *Gareth and Lynette*, *Lancelot and Elaine*, and *The Passing of Arthur*; Browning's *Cavalier Tunes*, *The Lost Leader*, *How They Brought the Good News from Ghent to Aix*, *Home Thoughts from Abroad*, *Home Thoughts from the sea*, *Incident of the French Camp*, *Hervé Riel*, *Pheidippides*, *My Last Duchess*, *Up at a Villa—Down in the City*.

B. The books prescribed for study and practice are:

For students entering in 1912, 1913, and 1914.

Shakespeare's *Macbeth*; Milton's *Lycidas*, *Comus*, *L'Allegro*, and *Il Penseroso*; Burke's *Speech on Conciliation with America*, or Washington's *Farewell Address* and Webster's *First Bunker-Hill Oration*; Macaulay's *Life of Johnson* or Carlyle's *Essay on Burns*.

Applicants who are not graduates of accredited high-schools, or who have not passed the uniform entrance-examinations, will be required to present themselves at the University of Pittsburgh entrance-examinations, held the three days preceding the opening of the Fall Term.

Mathematics

a. ALGEBRA THROUGH QUADRATICS.

One Unit.

The four fundamental operations for rational algebraic expressions. Factoring, determination of highest common factor and lowest common multiple by factoring. Fractions, including complex fractions, ratio, and proportion. Linear equations, both numerical and literal, containing one or more unknown quantities. Problems depending on linear equations. Radicals, including the extraction of the square root of polynomials and of numbers. Exponents, including the fractional negative.

Quadratic equations, both numerical and literal. Simple cases of equations with one or more unknown quantities, that can be solved by the methods of linear or quadratic equations. Problems depending on quadratic equations. The binomial theorem for positive integral exponents.

b. PLANE GEOMETRY.

One unit. The usual theorems and constructions of the text-books, including the general properties of plane rectilinear figures; the circle and the measurement of angles; similar polygons; areas; regular polygons and the measurement of the circle. The solution of numerous original exercises. Applications to mensuration.

c. ADVANCED ALGEBRA.

One-half unit.

Ratio, proportion and variation; variables and limits; properties of series, including the binomial theorem for exponents of all kinds; the progressions; use of undetermined coefficients; permutations and combinations; logarithms, computation and use; summation of recurring series; method of differences; interpolation.

d. SOLID GEOMETRY.

One unit.

The usual theorems and constructions of good text-books, including the relations of planes and lines in space; the properties and measurement of prisms, pyramids, cylinders, and cones; the sphere, and the spherical triangle. The solution of numerous original exercises, including loci problems. Applications to the mensuration of surfaces and solids.

e. PLANE TRIGONOMETRY.

One-half unit.

A comprehensive treatment as given in ordinary texts, including trigonometric functions of angles, goniometry and the solutions of right and oblique triangles.

History

One unit.

a. ANCIENT HISTORY. With special reference to Greek and Roman history, and including also a short introductory study of the more ancient nations and the chief events of the early Middle Ages, down to the death of Charlemagne (814).

b. MEDIAEVAL AND MODERN HISTORY. European history, from the death of Charlemagne to the present time.

c. ENGLISH HISTORY.

d. AMERICAN HISTORY AND CIVIL GOVERNMENT.

Each of the above topics is intended to represent one year of historical work, wherein the study is given five times per week, or two years of historical work, wherein the study is given three times per week.

Latin

One unit each.

a. GRAMMAR and elementary prose composition; a thorough knowl-

edge of all regular inflections, all common irregular forms, the fundamentals of syntax, and a select vocabulary.

b. CAESAR, *Gallic War*, Books I-IV, or the equivalent from other books of the *Gallic War* or the *Civil War*, or Nepos, *Lives*. The examination consists of translation at sight of narrative prose similar to the above.

c. CICERO, the four orations against Catiline and the orations for Archias and for the Manilian Law, or the equivalent from other orations of Cicero or from his letters, or from Sallust, Catiline and Jugurtha, except that the orations for the Manilian Law and for Archias are required. Advanced prose composition. The examination consists of translation (together with historical, literary and grammatical questions) partly of passages taken from the two required orations, and partly at sight of passages similar to the above in vocabulary, syntax and range of ideas. In addition, there is an examination in prose composition.

d. VIRGIL, *Aeneid*, Books I-VI, or the equivalent from other books of the *Aeneid*, or from the *Bucolics* or *Georgics*, or from Ovid, *Metamorphoses*, *Fasti*, or *Tristia*, except that *Aeneid* I, II and either IV or VI are required. The examination consists of translation (together with questions on grammar, prosody, literary and historical allusions, and subject-matter) partly of passages taken from the required books, and partly, at sight, of passages similar to the above in vocabulary, syntax, and range of ideas.

Greek

One or two units.

a. GREEK GRAMMAR and the elements, forms, constructions, conditional sentences, indirect discourse, etc. Composition. Translation into Greek of easy Attic prose based on the *Anabasis*.

b. XENOPHON'S *Anabasis*. Four books. HOMER, Books I and II of the *Iliad*.

German

One unit each.

a. ELEMENTARY GERMAN. During the first year the work should comprise (1) careful drill upon pronunciation; (2) the memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar; (4) abundant easy exercises designed, not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (5) the reading of from 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lessons.

b. SECOND YEAR GERMAN. During the second year the work should comprise (1) the reading of from 150 to 200 pages of literature in the

form of easy stories and plays; (2) practice as before, in the translation into German of easy variations upon the matter read, and also in the reproduction, orally and in writing, of the substance of short and easy selected passages; (3) continued drill upon the rudiments of grammar.

Stories suitable for the elementary course can be selected from the following list: Grimms' *Märchen*, Gerstäcker's *Germelshausen*, Heyse's *L'Arrabbiata*, Storm's *Immensee*, Baumbach's *Der Schwiergersohn*, Schokke's *Der Zerbrochene Krug*, Hillern's *Höher als Die Kirche*.

Among shorter plays the best available are, perhaps; Benedix's *Der Prozess*, *Der Weiberfreund*; Elz's *Er ist nicht eifersüchtig*; Wichert's *An der Majorsecke*; Wilhelm's *Einer muss heiraten*.

c. THIRD YEAR GERMAN. The work should comprise the reading of about 400 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes, and likewise upon word-order and word-formation.

Suitable reading matter for the third year can be selected from such works as the following: Freytag's *Die Journalisten* and *Bilder aus der deutschen Vergangenheit*, for example, *Karl der Grosse*, *Aus den Kreuzzügen*, *Doktor Luther Aus dem Staat Frederichs des Grossen*, Gerstäcker's *Irrfahrten*, Hoffman's *Historische Erzählungen*, Riehl's *Der Fluch der Schönheit*, Schiller's *Wilhelm Tell*, *Der Neffe als Onkel*, *Das Lied von der Glocke*, Wildenbruch's *Das edle Blut*.

French

One unit each.

a. ELEMENTARY FRENCH. In the first year the work should comprise (1) careful drill in pronunciation; (2) the rudiments of grammar; (3) easy composition; (4) the reading of from 150 to 200 duo-decimo pages of easy French prose; (5) writing French from dictation.

b. SECOND YEAR FRENCH. During the second year the student should read from 300 to 400 pages of easy modern prose. Suitable texts are: Halévy's *L'Abbé Constantin*; Bruno's *Le tour de la France*; Malot's *Sans famille*; Labiche and Martin's *La poudre aux yeux* and *Le voyage de M. Perrichon*; Dumas' *L'Evasion du Duc de Beaufort*. Continued drill upon the rudiments of grammar, the mastery of the chief irregular verbs, dictation, practice in French conversation.

c. THIRD YEAR FRENCH. In the third year from 500 to 600 pages of French of ordinary difficulty should be read. The essentials of French syntax are required, with constant practice in the use of spoken French. Suitable texts are : Daudet's *Contes*; About's *Le Roi des Montagnes*; Mérimée's *Colomba*; Augier's *Le Gendre de M. Poirier*; Molière's *Le Bourgeois Gentilhomme*; Maupassant's *Contes*; George Sand's *La Mare au Diable*; Modern French Plays.

Physics

One unit.

The candidate will be expected to be familiar with the fundamental principles of physics. A sufficiently extended treatment of the subject will be found in any of the principal text-books now in use in secondary schools, such, for instance, as Milliken and Gale, Carhart and Chute, Hadley, Mann and Twiss.

It is furthermore very desirable for the student to have received training in laboratory work, but for the present no laboratory work will be required.

Chemistry

One unit.

The knowledge gained, should be sufficiently comprehensive to include all broadly fundamental facts, and exact. Laboratory work, emphasizing descriptive chemistry, is necessary, and notes of this work must be presented. Much attention should be given to solutions of problems.

Biology

One unit.

Under this one head are grouped the subjects of Botany, Zoölogy, and Physiology. The one unit may be made in a single subject or by any combination of two. Laboratory exercises or field-work, equal in time at least to that given to text-book and lecture is essential. In offering subject for credit the names of the text-books used should be given.

Physiography

One-half unit.

This subject, otherwise known as Physical Geography, must have been pursued as a special subject and not as a part of the earlier study of general geography, and a standard text-book, dealing with the subject solely, must have been used.

Drawing

One unit.

Either free-hand or mechanical drawing, or both, may be offered. Specimens of the work done must be presented, properly certified by the instructor, with a statement of the length of time taken in the course which they represent.

Shop-Work

One unit.

The work done must usually have been of the systematic kind prescribed in courses of manual training.

CONDITIONS

No applicant with more than three entrance conditions will be admitted as a regular student. It is highly desirable that students should enter without conditions. Conditions must be partly removed before the sophomore year, and wholly removed before the junior year.

Preparation for college work is not provided for by the University, except in the Summer Term.

ADVANCED STANDING

A. From High and other Preparatory Schools.

Students entering with more than 15 units may receive college credit for work in excess of the 15, when such work includes courses given under the same name in the University, only by taking special examination in this work.

B. From other Colleges.

Students from other colleges, whose entrance requirements are equivalent to those of the University, and which offer equivalent courses of study, will be credited with work done in such colleges, and admitted to advanced standing without examination.

DEGREES

Upon the satisfactory completion of the required work, with a minimum of 192 credits, the degree of Bachelor of Science in Economics will be conferred.

SPECIAL STUDENTS

Students who are unable to take the full four-year course, but who by reason of maturity, business experience, or general education, are qualified to do the work, may be admitted as special students. No degree will be conferred upon students taking only a special course.

The courses of special students will be arranged according to the previous training and the particular needs of the individual applicant.

EVENING SCHOOL

Many of the courses given in the School of Economics are offered also in the Evening School of Economics, Accounts, and Finance. Though designed primarily for men engaged in business, who cannot take advantage of the full four-year day course, all the courses in the Evening School are open to day students, and full college credit will be given for courses satisfactorily completed therein.

For Evening School courses, see Evening School Bulletin.

TUITION

Fall Term.....	\$40.00
Winter Term.....	35.00
Spring Term.....	35.00
Summer Term	35.00

FEES

Matriculation	\$ 5.00
Gymnasium, per term.....	2.00
Diploma	5.00

The amount charged for tuition includes an athletic fee, which entitles students to free admission to the athletic events under the control of the General Athletic Committee of the University.

ANNOUNCEMENT FOR STUDENTS PREPARING TO STUDY LAW. COMBINED ECONOMICS AND LAW COURSE.

Increasingly the lawyer's problems are those of the business world. Thorough training in the fundamentals of economics, political science and sociology is becoming more essential as a preparation for the study and practice of law. Many leading law schools now emphasize the importance of such pre-legal courses as are given in the School of Economics.

All prospective law students are urged to take the full four years' collegiate preparation. The student who cannot afford to spend four years in the School of Economics and three years in the School of Law may combine the two courses and receive both degrees in six years by electing the Freshman Law Course in his fourth year. The degree of the School of Economics will be granted at the end of the fourth year and the degree of Bachelor of Laws at the end of the sixth year.

The attention of the prospective law student is drawn to the rules governing registration as students at law and admission to the Bar of the Supreme Court of Pennsylvania. No person can be registered as a student at law until he has received his academic degree or has passed the preliminary examination. After registering as a law student three years must be spent in the study of law before the applicant may come before the State Board for final examination for admission to the Bar of the Supreme Court in Pennsylvania. (For particulars, see the University catalog, 1911-12, pp. 377-385.

Under the foregoing rules the student who takes the combined six years' course will not, without taking the preliminary examination, be eligible to take the final Bar examination until one year after completing his law course. The student is advised, therefore, to complete the full four years' academic course before entering the School of Law,

or, failing that, to take the preliminary law examination sometime before the close of the third year of his undergraduate course.

Prospective law students who do not present upon entrance to the School of Economics the equivalent of the Latin required for the preliminary examinations, and who have not already passed said examination, will be required to satisfy these Latin requirements before being certified for entrance to the School of Law.

REQUIRED COURSES

Freshman Year

		Fall.	Winter.	Spring.
German (1, 2, 3)				
<i>or</i>				
French (Romance 1, 2, 3)			*3	*3
<i>or</i>				
Spanish (Romance 30, 31, 32)				*3
English (1, 2, 3)	3	3	3	
Public Speaking (1, 2).....	..	2	2	
European History (3, 4, 5)	3	3	3	
Economics (1, 2, 3).....	3	3	3	
Accounting (Economics 47, 48, 49).....	3	3	3	
Government (Political Science 1, 2, 3).....	2	2	2	
Physical Education	I	I	I	

*One hour a week per term constitutes a credit.

Sophomore Year

		Fall.	Winter.	Spring.
French (Romance 4, 5, 21)				
<i>or</i>				
German (4, 5, 6)		3	3	3
<i>or</i>				
Spanish (Romance 35, 36, 37)				
English (7, 8, 16).....	3	3	3	
Public Speaking (3, 4).....	2	2	..	
American History (6, 7, 8).....	3	3	3	
Money and Banking (Economics 4, 5, 6).....	2	2	2	
Economic Resources (Economics 7, 8, 9).....	2	2	2	
Sociology (1, 2, 3).....	2	2	2	
Municipal Government (Politics 4, 5, 6).....	2	2	2	
Physical Education	I	I	I	

OTHER REQUIRED COURSES.

In addition to the foregoing all regular students are required to take in the Junior or Senior year Psychology (1, 2, 3), Ethics (Philosophy 1), and Logic (Philosophy 2).

JUNIOR AND SENIOR ELECTIVES.

In addition to the foregoing required courses, students must elect courses which will give a total of 192 credits required for graduation. Though a considerable range of election will be permitted to allow the student to study those branches that will be of most value to him in his chosen career, his courses must be taken mainly in the three leading groups,—Economics, Political Science, Sociology.

Elective in Economics

	Fall.	Winter.	Spring.
Transportation (Economics 10, 11, 12).....	2	2	2
Modern Industries (Economics 13)	2	..	..
Industrial Management (Economics 16).....	..	2	..
Labor Problems (Economics 19).....	..	..	3
Corporation Finance (Economics 21).....	2	..	..
Investments (Economics 24) .....	..	2	..
Brokerage (Economics 27).....	..	..	2
Public Finance (Economics 30, 31).....	2	2	..
Financial History of U. S. (Economics 32) .....	..	..	2
Commercial History and Policy (Economics 34, 35)	2	2	..
Tariff and Foreign Trade Relations (Economics 36)	..	..	2
Insurance (Economics 37, 38, 39).....	2	2	2
Property Insurance (Economics 40, 41, 42).....	2	2	2
Business Law (Economics 43, 44, 45).....	2	2	2
Advanced Accounting (Economics 50, 51, 52).....	2	2	2
Auditing (Economics 53, 54, 55).....	2	2	2
Accountancy Problems (Economics 56, 57, 58)....	2	2	2
Bank Accounting (Economics 59).....	..	2	..
Railway Accounting (Economics 60).....	..	..	2
Accountancy of Investment (Economics 61).....	2	..	..
System Designing (Economics 62, 63, 64).....	2	2	2
Cost Accounting (Economics 65, 66, 67).....	2	2	2
Accounting Practice (Economics 68, 69, 70).....	2	2	2
History of Economic Thought (Economics 100)....	2	2	2
Journalism 1, 2, 3.....	2	2	2
Journalism 4, 5, 6.....	2	2	2

ELECTIVES IN POLITICAL SCIENCE

Comparative Government (Politics 9, 10).....	2	2	..
American Constitutional Law (Politics 12, 13)....	2	2	..
Comparative Constitutional Law (Politics 15, 16)..	2	2	..
American Diplomacy (Politics 18).....	..	..	3
International Law (Politics 20, 21).....	2	2	..
Conference and Seminar (Politics 22).....	1	1	1
Municipal Problems (Politics 25).....	2	2	2

Electives in Sociology

	Fall.	Winter.	Spring.
Evolution (Sociology 4).....	2	..	..
Race Development (Sociology 5).....	..	2	..
Race Problems (Sociology 6).....	..	..	2
Social Economy (Sociology 7, 8, 9).....	2	2	2
Research in Social Economy (Sociology 10, 11, 12)...	2	2	2
Social Legislation (Sociology 13, 14).....	2	2	..
Social Settlements (Sociology 15, 16).....	..	2	2
Poor Relief (Sociology 17, 18, 19)	2	2	2

DESCRIPTION OF COURSES

Economics.

I, 2, 3. POLITICAL ECONOMY

PROFESSORS FLOCKEN AND CRAFER Three Terms; 3 credits each term

A consideration of the fundamental concepts of economics; definition of terms; the theory of value, production, consumption, and distribution; factors of production; shares in distribution; the present day problems of economics and an application of economic theory to the settlement of these problems; the problems of wages, labor unions, trusts and monopolies, tariff, interest, taxation, immigration, socialism, single tax and social reform legislation.

Text-book, lectures and collateral readings. Prerequisite to all advanced courses in Economics.

3 E. ECONOMICS

Fall Term; 3 credits

A brief résumé of economic theory. Discussion of practical economic problems; wages, interest, rent, currency, banking, taxation, trusts, tariff, socialism.

Open only to Engineering and special students.

Text-books and lectures.

100. HISTORY AND LITERATURE OF ECONOMICS

DR. CRAFER

Three Terms; 2 credits each term

This course embraces a study of the contributions to economic thought made by the Greeks, the Romans, the Schoolmen, the Mercantilists, the Kemeralists, the Physiocrats, the Classical Economists and the Historical School. Particular attention will be paid to the development of economic thought since the time of J. S. Mill. Lectures, readings and reports.

Open only to those qualified to do graduate work.

4, 5, 6. MONEY AND BANKING

PROFESSOR HOLDSWORTH

Three Terms; 2 credits each term

Historical and theoretical study of the principles of money and credit. Evolution of money. Functions of money. The monetary system of the United States. Fiat and credit money. Bimetallism. Factors affecting supply and demand. Theory of prices. Price tables. Nature and uses of credit. Credit instruments. Relation of credit to prices. Domestic and foreign exchange.

The history and development of banking, with special reference to American experience. The national bank system; organization and leading features, operations, departments and duties of officers and clerks, deposits, loans and discounts, collections, clearings, records and accounting systems, examinations, statements and reports, failures. Weakness of the reserve and circulation features. Proposed banking and currency reform. Savings banks, trust companies, international banking. Foreign banking systems. Text-book, lectures, assigned readings, and reports.

7, 8, 9. ECONOMIC RESOURCES

DR. HOLDSWORTH and MR. ———

Three Terms; 2 credits each term

A study of the natural resources of the United States,—mineral, animal, agricultural. Especial attention is given to agriculture, and to the problems of conservation. Examination of the resources and industrial conditions of different sections of the country, as the basis of our enormous domestic trade. Examination of the resources and industrial needs of a few typical foreign countries in Europe, South America, and the Orient, to indicate the basis of our foreign trade. Text-book, lectures, assigned readings, and reports.

10, 11, 12. TRANSPORTATION

MR. ———

Three Terms; 2 credits each term

The origin and growth of American railways. Their present ownership and control. The organization of the railway company, and how it does its work. Railway financing. The freight, passenger, express, and mail service. Railway abuses. Regulation by the States and by the Federal Government. The Interstate Commerce Commission. Government ownership in the light of foreign experience. Railway rates and fares. Electric railway transportation. Ocean transportation. Ocean

highways and seaboard terminals. The organization of ocean freight, passenger, express, and mail service. The merchant marine. The question of subsidies. The river, lake, and canal systems of the United States. The increasing importance of the inland-waterways question. Text-book, lectures and assigned readings. Text-book, Johnston's *American Railway Transportation and Ocean and Inland Water Transportation*.

13. MODERN INDUSTRIES

MR. _____

Fall Term; 2 credits

A study of the leading manufacturing industries. Sources and supply of raw material. Factors affecting the location of industry. Sources and application of power. Manufacturing methods, and factors affecting cost of production. Large-scale *versus* small-scale production. Home and foreign markets for domestic manufactures. Lectures, assigned readings, and reports.

16. INDUSTRIAL MANAGEMENT

ASSISTANT PROFESSOR FLOCKEN and MR. _____ Winter Term; 2 credits

Advantages of various methods of business organization and management. "Scientific management." The internal management of the large business or plant and the differentiation of the duties of various departments. Profit-sharing schemes. Labor problems. Markets and methods of distribution. A study of actual industrial conditions by visits to the mills and shops of Pittsburgh, special attention being given to the handling of raw material, the arrangement of plant, and shipping facilities. Lectures, assigned readings, reports, field work.

19. LABOR PROBLEMS

ASSISTANT PROFESSOR FLOCKEN and MR. _____ Winter Term; 2 credits

The characteristic features of American industry and immigration with reference to the supply of labor. The organization, machinery, and methods of the trade-union and the employers' association. The planning and conduct of strikes and boycotts. The open and the closed shop. Arbitration and conciliation. Industrial efficiency. Labor legislation. The Federal and State laws and decisions relating to labor, the factory and sweatshop, and employers' liability. Text-book and assigned readings. Text-book, Adams and Summer's *Labor Problems*.

21. CORPORATION FINANCE

PROFESSOR HOLDSWORTII

Fall Term; 2 credits

Types of business corporations. The genesis of the trust. The financial organization and management of corporations. The promoter and the underwriting syndicate. The disposition of gross earnings and the provision of new capital. Charter, articles, and by-laws. Stockholders' powers, rights, and liabilities. Dissolution, receiverships and reorganizations. Lectures and text-book, assigned readings, and reports.

24. INVESTMENTS

PROFESSOR HOLDSWORTH

Winter Term; 2 credits

The general characteristics and merits of government and municipal bonds, and of railway, industrial, public-service-corporation, power and irrigation securities. The farm and city mortgage. How securities are purchased and marketed. The organization of the investment business. A study of fluctuations in bond and stock prices to determine the influences acting upon security values. Analysis of typical securities and railroad reports. Examination of savings banks and trust company holdings. Lectures, assigned readings, and reports.

27. BROKERAGE

PROFESSOR HOLDSWORTH

Spring Term; 2 credits

The organization and machinery of stock and produce exchanges. The terminology of the stock market. How stocks and bonds are listed and dealt in. Speculation. Dealing in "futures." Bucket shops. The "curb". Investment brokerage. The relation of the stock exchange to the country and to the banks. The broker and his work. The legal relationship of broker and customer. Lectures and reports.

30, 31. PUBLIC FINANCE

PROFESSOR HOLDSWORTH Fall and Winter Terms; 2 credits each term

Federal taxation and expenditures. Budget systems of other countries. The justice and incidence of taxation. State and municipal taxation and expenditures. General property tax, income and inheritance taxes, the single tax, methods of assessment. City budgets and municipal accounting. Lectures and reports.

32. FINANCIAL HISTORY OF THE UNITED STATES

PROFESSOR HOLDSWORTH

Spring Term; 2 credits

A study of the fiscal and monetary history of the United States from colonial times to the present. Text-book, Dewey's *Financial History of the United States*.

34, 35. COMMERCIAL HISTORY AND POLICY

MR. _____

Fall and Winter Terms; 2 credits

Colonial commerce and industry. The economic aspects of the Revolution. The public land system, and the new problems of conservation. Internal improvements and transportation. Slavery and the negro problem. Immigration. The merchant marine. Our insular possessions. The growth and supremacy of manufactures. The industrial genesis of the South. History of the tariff policy of the United States. Text-book, lectures, assigned readings, and reports.

36. TARIFFS AND FOREIGN TRADE RELATIONS

MR. _____

Spring Term; 2 credits

Theory of international trade. Its development in recent years. Commercial treaties. Navigation laws, bounties, subsidies. International re-

lations between the United States and the South American Republics and the Orient. Customs tariffs of the leading commercial nations. Methods and forms used in the foreign trade. The work of the consular service. Lectures, assigned readings, and reports.

37, 38, 39. GENERAL INSURANCE

ASSISTANT PROFESSOR FLOCKEN Three Terms; 2 credits each term

This course is designed to give the student a practical knowledge of the origin, development, economic importance and principles underlying the whole field of insurance with special attention given to life insurance. It embraces the fundamental principles common to all our present systems, including the principles of the mathematical problems involved, the work of the actuary, the valuation of policies, the calculation of reserves, the determination of rates and premiums, the several kind and types of policies, the investment of insurance funds and state regulation of insurance.

40, 41, 42. PROPERTY INSURANCE

MR. Three Terms; 2 credits each term

A study of the various branches of insurance other than life insurance,—fire, accident, marine, fidelity, etc. The fixing of rates, the policies and their interpretations, the legal principles involved, organization and management, insurance practice.

Lectures and assigned readings.

43, 44, 45. BUSINESS LAW

DR. CRAFER Three Terms; 2 credits each term

The elementary principles of law relating to contracts, sales, negotiable instruments, common carriers, agency, partnerships, and corporations. Emphasis is laid upon the legal problems which arise in every-day business. Text-book, lectures, discussion of cases. Text-book, Sullivan's *Business Law of Pennsylvania*.

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ACCOUNTING

ASSISTANT PROFESSOR FLOCKEN AND ASSISTANTS

47, 48, 49. PRINCIPLES OF ACCOUNTING

Three Terms; 2 credits each term

A course covering the fundamental principles of accounting, including the principles and practice involved in the derivation of the income statement and balance sheet; the construction, use, and interpretation of these statements; a study of the various books used in accounting; opening and closing entries, and the special accountancy requirements of the sole proprietorship, partnership,, and corporate forms of business organization.

50, 51, 52. ADVANCED ACCOUNTING

Three Terms; 2 credits each term

The theory covering various points in higher accounting; practice work in the solution of problems involving opening and closing entries for various kinds of businesses; problems arising out of single entry; problems having to do with the use and division of the revenue statement; partnership adjustments, corporations, consolidations, realization and liquidation accounts, the statement of affairs and deficiency accounts, and the accounts of executors, administrators and trustees. Considerable use will be made of the C. P. A. problems of the various States in the work of this course.

Prerequisite Economics 47-49.

53, 54, 55. AUDITING

Three Terms; 2 credits each term

Preparation of accounts for an audit; examination of books; nature of an audit; method of procedure; kinds of audits; duties and responsibilities of auditors; the auditor's certificate and report; special considerations in special classes of audits; fraud in accounts. Considerable work will be provided to afford practice in the auditor's work of making up, interpreting and certifying to business statements; problems with unusual features will be considered; also problems selected to give further practice in the work begun in the course in Advanced Accounting.

Prerequisite Economics 47-52.

***56, 57, 58. ACCOUNTANCY PROBLEMS**

Three Terms; 2 credits each term

Advanced problem work intended for those planning to take the State examinations for the degree of Certified Public Accountant, that is, those intending to practice public accounting as a profession. C. P. A. problems of Pennsylvania and of other States will be solved and discussed; attention will be given to the best methods of working and setting up problems; practice work to develop speed and accuracy in the solution of problems; comparison of problems set at the recent examinations with those given at the earlier examinations; C. P. A. questions other than problem questions. Prerequisite Economics 47-55.

*Not given in 1912-13.

59. BANK ACCOUNTING

Winter Term; 2 credits

The forms, records, books, and the internal checks of a bank; the functions of the paying teller, receiving teller, note teller, mail clerk, individual ledger bookkeepers and the general ledger bookkeeper in the general system of accounting control; the daily proofs; depositors' accounts, accounts with foreign banks, the building of reports for the Comptroller of the Currency and the calculation of the reserve; ac-

counts, records and proofs of the bank clearing house. Prerequisite Economics 47.

60. RAILWAY ACCOUNTING

Spring Term; 2 credits

Passenger accounting; freight accounting; the handling of receipts and disbursements; internal audits and checks; electric railway accounting; railway statistics; the accounting work of the Interstate Commerce Commission; reports required of railways; the railway revenue account and balance sheet. Prerequisite Economics 47, 48.

61. ACCOUNTANCY OF INVESTMENT

Fall Term; 2 credits

Development of interest formulas; amount, present worth, and rent of annuities; sinking fund calculations; valuation of bonds; amortization; use of investment tables; interest, mortgage, and loan accounts. Prerequisite Economics 47-49.

62, 63, 64. SYSTEM DESIGNING

Three Terms; 2 credits each term

Method of designing systems; practice work in designing systems; an application of the principles of accounting to particular lines of business; a study of the systems required by such institutions as insurance companies, public utility concerns, mining companies, brokerage concerns, building and loan associations, various trading organizations, public institutions and municipalities; the use of mechanical and other devices to facilitate accounting work. Prerequisite Economics 47-52.

65, 66, 67. COST ACCOUNTING

Three Terms; 2 credits each term

The design and installation of a cost system; benefits to be derived from accurate costs; purchase, use and storage of materials; the payroll and the getting of the labor costs to the job; types of cost systems to fit industries of various kinds; plans of wage payment; efficiency work and scientific management; depreciation; the factory burden, its determination and apportionment, including a study of scientific machine rates; inspection of cost systems in use and the literature of cost accounting. Prerequisite Economics 47-52.

68. ACCOUNTING PRACTICE

Three Terms

The purpose of this work is to give those students looking forward to public accounting as a career, and other students to a limited number, an opportunity to do actual accounting work and auditing for some of the smaller business enterprises of Pittsburgh. A student registering in this course must serve an apprenticeship as a junior accountant, until he is qualified to act as a senior accountant and to undertake on his own account the examination and auditing of books. Credit will be given

according to the work done. Three hours work per week, for one term, will give a one hour credit and additional credits will be granted on the same basis. It is not possible to state the credits for this course in advance as they will depend upon the supply of accounting work to be done as well as upon the time which the student has to give to this work.

Open only to those students who have had Economics 47-52, and who are registered in one or more of the advanced accounting courses.

JOURNALISM.

In response to a wide and increasing demand for more efficient service in the field of journalism special preparation is now offered in the School of Economics for this important profession. The courses are designed to give a broad and thorough knowledge of those subjects basic to all journalistic work,—literature, language, history, economics, politics, sociology, public law, finance, commerce, industry, philosophy, ethics, psychology,—and to supplement this general knowledge with technical instruction in the theory, history and practice of journalism. It is not claimed for this training that it will prepare young men to take up without further experience the responsible positions in a newspaper office. Its purpose is, rather, to give such training as will help the student to discover and develop natural ability and aptitude, and to familiarize him with the principles and methods that underlie newspaper organization and writing for the press. He will thus enter upon the actual duties and experiences of the newspaper office with a well-trained, well-stored mind, and with a clear understanding of what his duties are and how he should perform them. Promotion and success will come to the ambitious young man thus equipped more surely and more quickly than to the man without such preparation.

The work in Journalism includes: (1) class instruction and practical exercises in newspaper writing, editing, managing, etc.; (2) special lectures by men actively engaged in various departments of newspaper work; (3) research work, including the reading of the best works on journalism and newspaper making.

The work will be in charge of a practical newspaper man thoroughly familiar with newspaper methods.

JOURNALISM, I, 2, 3

MR. WILLIAMS

Three Terms; 2 credits each term

News Style: How it differs from the "literary" and "magazine" styles. Style Book: The method to be followed in spelling, punctuation, capitalization, etc., and a list of expressions, phrases and words to be avoided. News Writing: Exercises in writing news paragraphs from facts given, as they should be written for the newspaper. News: What

it is. Reporting: Its different phases, the interview, descriptive stories, "colored" stories, fires, accidents, disasters, etc. News-gathering: Local and telegraphic news, the Associated Press, the United Press Associations, the Tri-State News Bureau in Pittsburgh, and how Pittsburgh is divided into routes, or runs, for the purpose of gathering the news of the entire city.

In connection with the practical work, much attention is given to the actual work of securing and writing news through exercise and assignments, particular stress being laid on vocabulary and style, typography, copy-reading, etc. The work of the reporter will be considered in connection with the lectures on newspaper theory and methods. The student is given just the kind of work that is assigned the beginner by the city editor, but the instructor gives, in addition, the guidance and suggestions, the instruction in the details of the business, which no city editor, in the course of his multiplicity of duties has the time or the patience to impart to the "cub" reporter.

Open to Juniors and Seniors, and by special permission to others qualified to do the work of the course.

JOURNALISM 4, 5, 6

MR. WILLIAMS

Three Terms; 2 credits each term

Editorial Direction: The editorial style and writing editorials. Newspaper Policy: Its definition, its limitations and relation to the news columns. Newspaper Management: Division of labor, publication, printing, the mechanical departments, and the business department. The Sunday Newspaper: Its place in journalism and relation to the daily newspaper. Newspaper Problems: Ethics, the duty of the newspaper to the public it serves; "commercial" journalism, advertising, circulation; "yellow" journalism; how far should the newspaper endeavor to entertain as well as impart information, including comics and human interest features. Newspaper Technic: News-gathering and news-writing, a continuation of the first year's work. Comparative Journalism: A study of the types of journalism presented in the leading newspapers of the United States and Great Britain. Libel: What should be avoided as being "dangerous" to print.

Arrangements have been made by which students in this course may receive, towards the end of the year, several weeks' actual experience in the office of one of the large daily newspapers of Pittsburgh.

Open to Juniors and Seniors, to members of the staffs of the student publications, and to others who present the necessary qualifications.

FELLOWSHIP IN JOURNALISM.

Temporary arrangements have been made for a Fellowship in Journalism for the year 1912-1913.

POLITICAL SCIENCE.

PROFESSOR THORPE.

1, 2, 3. GOVERNMENT, FEDERAL AND STATE

Three Terms; 2 credits each term

The development of government in America. Charters and grants. Colonial organization. Formation of the United States of America. The civil organization; State, Federal. Administration. Text-book, lectures, assigned readings, and reports. Prerequisite to all succeeding courses in Political Science.

4. 5. 6. MUNICIPAL GOVERNMENT; CITIZENSHIP

Three Terms; 2 credits each term

The municipality a corporation. Organization and administration. Municipal functions. City charters. Initiative, referendum, recall. Government by commission. Municipal systems of Europe.

American citizenship. Status of the family. Naturalization. Civil and political rights. Expatriation. Party organization, the caucus, the suffrage. Text-book, lectures, readings, and reports. Required of sophomores.

9. 10. COMPARATIVE GOVERNMENT

Fall and Winter Terms; 2 credits each term

A comparative study of the leading governments of the world. Text-book, lectures, and assigned readings. Prerequisite Politics 1, 2, 3.

12, 13. AMERICAN CONSTITUTIONAL LAW

Fall and Winter Terms; 2 credits each term

The principles of constitutional law in America; the formation of constitutional law; the interpretation of constitutional law. The Constitution of the United States. Lectures, readings, and reports.

15, 16. COMPARATIVE CONSTITUTIONAL LAW

Fall and Winter Terms; 2 credits each term

The origin, adoption, development and interpretation of the constitutions of the States. Lectures, readings, and reports. Prerequisite Politics 12, 13.

18. AMERICAN DIPLOMACY

Spring Term; 3 credits

Historical study of the relations of the United States with foreign nations. Organization of the State Department diplomatic service. The treaty-making power. Monroe, Calvo, and Drago doctrines. The "open-door" in the Far East. Relation of the United States to the debtor

American nations. Rise of the United States to the position of a world power. Lectures, required readings, and reports.

20, 21. INTERNATIONAL LAW

Fall and Winter Terms; 2 credits

Historical development. Sources and authority of international law. The part played by the United States in its development. The law of peace, of neutrality, and of war. Blockade and contraband. The Hague Tribunal. The outlook for extension of international law. Text-book, lectures, assigned readings, and case reports.

22. CONFERENCE AND SEMINAR

Critical study of documents, materials and sources relating to the development of government in America. Open to persons qualified to pursue investigation and research work.

25. MUNICIPAL PROBLEMS

DR. HOLDSWORTH

Three Terms; 2 credits each term

An intensive study of current municipal problems,—food supplies: production and distribution, cooperative buying, markets; housing reform; transit facilities; educational and recreational facilities; fire prevention; protection of the water, milk and food supply; fiscal problems: taxation, assessment, the budget, bureau of municipal research; municipal accounting; city planning.

Open to students qualified to pursue graduate and research work.

SOCIOLOGY

PROFESSOR CRAFER

1, 2, 3. THEORY OF SOCIOLOGY

Three Terms; 2 credits each term

A study of the development of Sociology, its importance and place in the social sciences, and of the underlying biological, physical, and psychical factors in Sociology. Theory and methods of the science of statistics, with special application to the study of social life.

In the Winter and Spring terms a critical study will be made of the main contributions to sociological thought. Special attention will be given to American sociologists, including Ward, Giddings, Small, and Ross. The laws of progress as outlined by the various writers will be considered and discussed. Text-book, lectures, and reports.

4. EVOLUTION

Fall Term; 2 credits

A critical study will be made of Darwin's "Descent of Man", and the recent studies that have been made in variation, heredity, and evolution, and their application to race problems. The modern interest in Eugenics

and the contributions of Galton and Pearson. Text-books: Darwin's *Descent of Man*, Locke's *Variation, Evolution, and Heredity*. Lectures and reports.

5. RACE DEVELOPMENT

Winter Term; 2 credits

A Study of the human race and its divisions, with special reference to the sciences of anthropology and ethnology. Ethnic groups, language, the early family, marriage, social life and customs, and other factors which enter into race development. Colonial policies of England, France and Germany and their effects on native races. Collateral readings, lectures, and reports.

6. RACE PROBLEMS IN THE UNITED STATES

Spring Term; 2 credits

In this course, special attention is given to race problems in the United States, the negro, his distribution and progress, the Indian, the Asiatic, the new Hindu immigration and its problem. A study of the immigrants now coming to the United States and their probable effect on American social life. Lectures and reports.

PHILANTHROPY AND SOCIAL SERVICE.

The following courses are designed to meet the needs of those desiring to fit themselves as social workers, of students for the ministry, of Sunday School teachers and others connected with church activities, and of all who desire a first-hand knowledge of social conditions and the modes of dealing with the great social problems of the present day.

Pittsburgh offers exceptional opportunities for the study of social and economic problems and the University has been particularly fortunate in securing the hearty cooperation of the recognized leaders in sociological and philanthropic movements in the city.

7, 8, 9. SOCIAL ECONOMY

Three Terms; 2 credits each term

Problems of the dependent, defective, and delinquent. A study of charity, the pauper, the insane, the feeble-minded and the dependent child; the best method of dealing with them. Problems of crime; the criminal, jails, prisons, reformatories. A study of the preventive and educational measures now developing for the betterment of social conditions. Trips will be made to organizations and institutions in Pittsburgh and vicinity.

Lectures, assigned readings, reports, and participation in the Psychological Clinic in cooperation with the classes in Experimental Psychology in the College.

10, 11, 12. RESEARCH IN SOCIAL ECONOMY

Three Terms; 2 credits each term

Original research work in the field of social economy. Each year some specific social problem in the city of Pittsburgh will be intensively investigated.

This course is open only to those undergraduates doing superior work in Social Economy 7, 8, 9, and to graduate students.

13, 14. SOCIAL LEGISLATION

Fall and Winter Terms; 2 credits each term

A study will be made of the historical development of social legislation in the leading European countries as well as in the British colonies, but particular emphasis will be laid on the development of such legislation in America. Laws pertaining to the family, the school, the mine and the workshop will be carefully analyzed with a view to showing their bearing upon efficient citizenship.

Lectures, recitations, assigned readings and reports.

16, 17. SOCIAL SETTLEMENTS

Winter and Spring Terms; 2 credits each term

This course will embrace a study of the aim and purpose of the social settlement; organization and conduct of settlement activities, summer outings, etc. Students taking this course are advised to participate in the regular activities of social settlements established in the Pittsburgh District.

Lectures, assigned readings, field work.

19, 20, 21. ADMINISTRATION OF POOR RELIEF

Three Terms; 2 credits each term

This course is designed to give the student a comprehensive grasp of the problems involved in the administration of poor-relief, both public and private. A study will be made of the development of systems of poor-relief, but particular attention will be directed to the organization of relief-work in America. Students taking this course with a view to fitting themselves as social workers have a rare opportunity of doing effective field work in Pittsburgh under the direction of the officials of the various charitable organizations.

Lectures, assigned readings, discussion of "cases", field work.

ECONOMICS 19. LABOR PROBLEMS

ASSISTANT PROFESSOR FLOCKEN

Spring Term; 3 credits

The characteristic features of American industry and immigration with reference to the supply of labor. The organization, machinery, and methods of the trade-union and the employers' association. The planning and conduct of strikes and boycotts. The open and the closed shop. Arbitration and conciliation. Industrial efficiency. Labor legislation. The

Federal and State laws and decisions relating to labor, the factory and sweatshop, and employers' liability.

Text-book and assigned readings.

POLITICS 25. MUNICIPAL PROBLEMS

DEAN HOLDSWORTH

Three Terms; 2 credits each term

An intensive study of the socio-economic problems of the modern municipality.

Related Courses offered in the College and in the School of Education

17, 18. BACTERIOLOGY

PROFESSOR FETTERMANN Fall and Winter Terms, 4 credits each term

This course is intended for students taking regular courses in Biology, and also for those who may elect the work in Sanitary Engineering. Students are expected to become familiar with the methods of detection, isolation and identification of various micro-organisms. Lectures are given on the classification, morphology, structure, reproduction and cultural characteristics of bacteria. Instruction is given on the principles of sterilization and disinfection, special emphasis being laid upon their practical application. In the latter part of the course special attention is given to the study of the bacteria occurring in soil, water and milk. The manner in which bacteria produce disease and the production of immunity are explained. Text-books: Jordan; Abbott; Muir and Ritchie.

One lecture and six hours laboratory each week.

19. ADVANCED BACTERIOLOGY

PROFESSOR FETTERMANN

Spring Term, 4 credits

One lecture and six hours laboratory each week.

This course is a continuation of Course 18. The object is to impart a practical knowledge of the bacteriology of water, milk and sewage. Bacteria are studied in their relation to the dairy industry, and water supply, and also with reference to the part they play in the purification of sewage.

BIOLOGICAL SCIENCES

21. PERSONAL HYGIENE

DR. WALLGREN

Full Term, 2 credits

Lectures with the purpose of bringing out a general but accurate idea of the care and the operation of the human organism. They will touch on Anatomy, with a discussion of functions of the various systems, emphasizing effects of muscular fatigue and bad air upon the body, also the right use of body and methods of maintaining proper efficiency through choice of foods, recreation, rest, sleep, exercise, clothing and bathing.

22. SANITATION OF BUILDINGS

DR. WALLGREN

Winter Term, 2 credits

Ventilation, heating, lighting and plumbing are considered, chiefly in their relation to health and disease. Other topics which receive consideration are the causes of disease, regulation of body temperature, sources and remedies of discomfort in private rooms and public halls due to bad air, over-heating and over-crowding.

23. MUNICIPAL SANITATION

DR. WALLGREN

Fall Term, 3 credits

(a)—Water Supply; including the study of the various methods of procuring water from wells, springs, creeks, rivers and lakes, and also the methods of water purification. (b)—Disposal of sewage and refuse. (c)—Meat and milk supply. (d)—Epidemiology, prophylaxis, hygiene, disinfection and control of transmissible diseases. (e)—Vital statistics. (f)—Housing conditions.

One lecture and four hours laboratory each week.

HISTORY OF RELIGION

1. HISTORY OF THE HEBREWS

Fall term, 2 credits

PROFESSOR LINHART

From the call of Abraham to the close of the Old Testament, Canon, with special reference to the character and work of the civil and religious leaders of the Hebrew people.

Text-books: Kent's *Historical Bible* and Sheffield's *Old Testament Narrative*.

2. NEW TESTAMENT HISTORY.

Spring Term, 2 credits

An historical study of the founding and progress of Christianity to the close of the Apostolic Age, with special reference to the teachings of its founder and the most important events of his life. Special attention is given to the social and ethical teachings of Jesus, and also to the establishing of the Christian religion in the principal centers of population and commerce of the Roman empire by the Apostles and their immediate successors.

Text-books: Steven's and Burton's *Harmony of the Life of Christ*, and Bartlet's *Apostolic Age*.

PHILOSOPHY

3. HISTORY OF RELIGION

PROFESSOR LINHART

One Term, 2 credits

A study of the development of the religious consciousness of the race and the leading features of the great historic religions.

1. ETHICS

PROFESSOR LINHART

Winter Term, 3 credits

A study of theoretical and practical Ethics based upon Dewey and Tuft's *Ethics*, and Rogers' *Short History of Ethics*, with lectures on the field of Ethics and class-room discussions on present-day ethical questions.

2. HISTORY OF ETHICS

PROFESSOR LINHART

One Term, 2 credits

A study of the historical development of ethical principles, both ancient and modern, with critical estimate of current ethical theories. Text-book, lectures and collateral reading.

Elective for students who have taken Course 1.

PSYCHOLOGY

5, 6, 7. EXPERIMENTAL PSYCHOLOGY

DR. WHITE Fall, Winter and Spring Terms, 3 credits each term

A course consisting of laboratory work, lectures, demonstrations, collateral reading and discussions. It is the purpose of the course to familiarize the student with the method, the apparatus, and the results of the typical groups of experiments in each of the important lines of psychological research. Sensation, affection, attention and action, preception and idea, association, memory, orientation, rhythm, etc. Along with the regular work, special problems may be undertaken.

In addition to this regular course, facilities are offered students in other departments who may need to make a study of some forms of personal equation, or of certain psychological laws, or of experimental technique for work in child-study or school hygiene.

For the regular course, a lecture and demonstration period and two two-hour laboratory periods a week.

Myer's *Text-book of Experimental Psychology*; Sanford's *Experimental Psychology*; Titchener's *Experimental Psychology*. Reference books; Wundt, Kulpe, Jastrow, Stratton, Witmer, Scripture.

Open to students who have taken Psychology 1, 2, 3.

14. DEFECTIVE AND DELINQUENT CHILDREN

DR. WHITE

Spring Term, 3 credits

Causes and appearances of mental and physical disorders and defects in children. The kinds of disorder and defects together with their anatomy, physiology and hygiene through the several nascent periods. Dependents. Delinquents. Mental and physical conditions identified with dependency and delinquency.

A critical and constructive study of the educational problems arising from the investigations of defective, dependent, and delinquent chil-

dren. The practical problems of medical inspection and hygienic supervision of school children. Discussion of the diagnosis and correction of the disorders and defects.

Readings, lectures, clinical work, visits to institutions.

47. EDUCATIONAL SOCIOLOGY

PROFESSOR SIES Fall and Winter Terms, 2 credits each term

A study of education as a social institution. The social function of education and its place in sociological theory. Interrelations between education and form of government. Mediation of the school between the child and society. Social significance of education as adjustment. A critical consideration of moral education. The sociology of teaching, supervision, and administration.

Education as an agency in social economy. Potential power of education in ameliorating the condition of the masses. Heredity *versus* the social environment. A consideration of modern educational movements from the standpoint of social economics.

Open to all graduates and to undergraduates who have taken or are pursuing a course in the principles of sociology.

EDUCATION 13.

DR. WALLIN

The Psychological Clinic. This is a practical course in the actual examination of children under direction. It is an essential part of the training of teachers of special classes, of school nurses, and of social workers. It aims to give a familiarity with the common mental and physical defects of children and to develop a technic in mental examination and diagnosis by all the best known methods.

Hours to be arranged on consultation. Credits given according to the work done.

ENGLISH LANGUAGE AND LITERATURE

1, 2, 3. COMPOSITION

PROFESSOR GIBBS AND ASSISTANTS

Fall, Winter, and Spring Terms, each 3 credits

A study of the principles of composition, with exercises in the analysis of prose selections, practice in writing, and criticism.

Required of Freshmen.

7, 8. ARGUMENTATION AND DEBATING

MR. ----- Fall and Winter Terms, each 3 credits

The theory of argumentation, with practical exercises in brief-drawing and the composition and delivery of forensics.

Required of Sophomores.

15. ENGLISH LITERATURE

PROFESSOR GIBBS Fall, Winter, and Spring Terms, each 3 credits

A study of selected masterpieces representing the successive periods of English literature, with a text-book to furnish a historical background and connections.

Elective for Juniors and Seniors.

16. AMERICAN LITERATURE

PROFESSOR GIBBS Spring Term, 3 credits

The development of literature in America, with readings from representative authors, especially Irving, Emerson, Hawthorne, Lowell, Longfellow, and Poe.

Required of Sophomores.

17, 18, 19. THE DRAMA AND SHAKESPEARE

PROFESSOR GIBBS Fall, Winter and Spring Terms, each 3 credits

A study of Shakespeare's development in technique and the treatment of character, with some attention to the more important plays of Lyly, Kyd, Marlowe, Ben Jonson, Beaumont and Fletcher, and Webster. Readings, lectures, and class discussions constitute the method.

Elective for students who have taken Courses 15 and 16, or an equivalent.

For other electives in English Language and Literature see the general Catalog.

PUBLIC SPEAKING

Mr. ————— ..

1, 2. PUBLIC SPEAKING Winter and Spring Terms, each 2 credits

Exercises in the fundamentals of public address. Individual instruction in small classes.

Required of Freshmen.

3, 4. PUBLIC SPEAKING Fall and Winter Terms, each 2 credits

Special study of the composition and delivery of original speeches, based on the principles of effectiveness.

Required of Sophomores.

7. PUBLIC SPEAKING Winter Term, 2 credits

A course in the theory and practice of oratory. The student is taught the principles of preparing and delivering the occasional formal address. This work is designed as a groundwork for Course 8.

Elective for those who have taken English 1, 2, 3, and Public Speaking 1, 2, 3.

8. PUBLIC SPEAKING Spring Term, 2 credits

An advanced course in platform speaking. The instruction is designed to meet a practical need. Students are taught the demands of the various forms of public address—such as the after-dinner speech, the commemorative address, the eulogy, etc.

Required of Sophomores.

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GERMAN LANGUAGE AND LITERATURE

PROFESSOR BERGER AND DR. BURDICK

1, 2, 3. ELEMENTARY GERMAN

Fall, Winter and Spring Terms, 3 credits each term

Elements of grammar and the reading of easy texts. Vos, *Essentials of German*; Hewitt's *German Reader*; Simple lyrics and ballads memorized. Gerstäcker, *Germelhausen*; Baumbach, *Der Schwiegersohn*.

Open to Freshmen who have satisfied requirements for admission by offering French or Latin if they wish to take up German as the required modern language.

4, 5, 6. INTERMEDIATE COURSE

Fall, Winter and Spring Terms, 3 credits each term

Review of Grammar. Drill in translating from English into German and practice in conversation. Memorizing of simple prose and poetry. Wesselhöft: *German Exercises*. Wenckebach: *German Composition*. Wildenbruch: *Das edle Blut*. Sudermann: *Frau Sorge*. Roth: "Ein Nor-discher Held." Hatfield: *German Lyrics and Ballads*.

Classical German Authors. Selections from the following lists of texts: Schiller: *Maria Stuart*. Goethe: *Hermann und Dorothea*; Lessing *Minna von Barnhelm*. German is used extensively in conducting class-work.

Required of all Freshmen satisfying entrance requirements in German who elect to continue it.

7, 8, 9. COMMERCIAL GERMAN

Fall, Winter and Spring Terms, 3 credits each term

Syntax. Prose Composition, conversation. Freytag: *Soil und Haben, Aus dem Jahrhundert des grossen Kreiges*. Fulda: *Der Dummkopf*. Whitefield and Kaiser: *A Course of Commercial German*.

Required of all Sophomores in the School of Economics, who elect German in Freshman year, having satisfied entrance requirements in this language. Elective for students who have taken previous courses.

23. GERMAN LIFE AND MANNERS

Three Terms, 2 credits each term

This course presents the life, character, history and customs of the German people, treats of their present and past states of culture, the geography of the new empire, places of interest, and other subjects of interest from human and humanistic standpoints. Texts: *German Daily Life, Germany and the Germans, Willkommen in Deutschland, Drei Wochen in Deutschland.*

ROMANCE LANGUAGES AND LITERATURES

PROFESSOR HARRY AND MR. ——————

1, 2, 3. ELEMENTARY FRENCH

Fall, Winter and Spring Terms, 3 credits each term

Fraser and Squair's Grammar. Composition and easy reading, with thorough drill in pronunciation and practice in speaking.

Open to Freshmen who have satisfied requirements for admission by offering German or Latin, if they wish to pursue French as the required modern language.

4, 5. INTERMEDIATE FRENCH

Fall and Winter Terms, 3 credits each term

Extensive reading in selected works of Modern French writers. Fraser and Squair's Grammar completed. Advanced prose composition. French conversation. The following texts are read: Daudet, *Contes Choisis*; Maupassant, *Contes*; About, *Le Roi des Montagnes*; Coppée, *On Rend l'Argent*; Augier, *Le Gendre de M. Poirer*; George Sand, *La Mare au Diable*; Canfield's French Lyrics.

Required of all Freshmen satisfying entrance requirements in French who elect to continue it.

21. COMMERCIAL FRENCH

Spring Term, 3 credits

This course is designed for students of the School of Economics who have a good reading knowledge of French prose of ordinary difficulty. The vocabulary of the commercial world is emphasized. Periodicals dealing with commerce, industry and finance will be largely used. Commercial correspondence.

Pre-requisite: Courses 4, 5.

30, 31, 32. ELEMENTARY SPANISH

Fall, Winter and Spring Terms, 3 credits each term

Hill's and Ford's *Spanish Grammar*, reading, composition, conversation. Bransby's *Spanish Reader*, Selgas, *La Mariposa Blanca*; Galdos, *Dona Perfecta*; Tamayo, *Lo Positivo*; Giese's *Spanish Anecdotes*.

33, 34. SPANISH CLASSICS

Fall, Winter and Spring Terms, 3 credits each term

Cervantes, *Don Quixote*; Lope de Vega, Calderon. Fitz-Maurice-Kelly, *History of Spanish Literature*.

35, 36, 37. COMMERCIAL SPANISH

Fall, Winter and Spring Terms, 3 credits each term

Reading of commercial Spanish. Commercial correspondence. Conversation. The vocabulary of every day life is emphasized.

Open to Freshmen who have satisfied admission requirements by offering Latin, German, or French, if they wish to pursue Spanish as the required modern language.

40, 41, 42. ELEMENTARY ITALIAN

Fall, Winter and Spring Terms, 3 credits each term

Elementary grammar, dictation, reading, memorizing, conversation, and easy composition. Motti's *Elementary Italian Grammar*. Cattaneo, *Italian Reader*. DeAmicis, *Cuore*. Other selections from modern authors will be assigned by the instructors.

43, 44, 45. ITALIAN, INTERMEDIATE COURSE

Fall, Winter and Spring Terms, 3 credits each term

Study of Italian Grammar in Italian. Conversation and advanced prose composition. Italian literature of the XVIII and XIX centuries. Selected readings and brief lectures in Italian. Manzoni, *I Promessi Sposi*, will be read in full.

Open to students who have taken the course in Elementary Italian.

HISTORY

PROFESSOR DYESS AND MR. HOWE

3, 4, 5. EUROPEAN HISTORY

Fall, Winter and Spring Terms, 3 credits each term

The course covers the period from the Renaissance to the present time. Special attention is given to the development of civilization; to the growth in institutional liberty; to the changes produced by economic causes. Required in the Freshman Year.

6, 7, 8. THE POLITICAL AND CONSTITUTIONAL HISTORY OF THE UNITED STATES Fall, Winter, Spring Terms, 3 credits each term

The course covers the history of the United States under the Constitution. The great questions of the organization and consolidation of the Government, the growth of Democracy and Nationality, and Reconstruction are thoroughly considered.

Required in the Sophomore Year.

9. 10. 11. HISTORY OF ENGLAND

Fall, Winter, Spring Terms, 3 credits each term

The course covers the period from the Anglo-Saxon invasion to the nineteenth century. Stress is laid upon the growth of liberty, the characteristics of the British Constitution, and the development of the Empire. Courses 1 and 2 are pre-requisite to this course. Text-book and lectures.

Elective for Juniors and Seniors.

12. HISTORY OF FRANCE

Fall Term, 2 credits

This course is meant to trace the history of the growth of the French nation from the beginning of the Frankish monarchy to the French Revolution. Special attention is given to the development of civilization and to the influence of France in this respect upon Europe and the world.

Courses 1 and 2 are pre-requisite to this course. Text-book and lectures. Elective for Juniors and Seniors.

13. THE FRENCH REVOLUTION AND NAPOLEONIC PERIOD

Winter Term, 2 credits, 2 hours

The course of the French Revolution and the career of the great Napoleon are briefly considered, with special reference to their influence upon the Europe of today.

14. HISTORY OF THE NINETEENTH CENTURY IN EUROPE

Spring Term, 2 credits

The course includes the political history of Europe from the French Revolution to the present time. Special attention is given to the Unification of Germany and Italy. Themes are required upon the most important events. Courses 12 and 13 are pre-requisite. Text-book and lectures.

15. THE GROWTH OF THE BRITISH EMPIRE

Fall Term, 2 credits

A study of the growth, development and present condition of the British Empire, and constitutional problems resulting therefrom. Courses 9, 10, and 11 are pre-requisite.

16, 17. GERMAN HISTORY IN 18TH AND 19TH CENTURIES

Winter and Spring Terms, 2 credits each term

A detailed study of the rise of Prussia, the reign of Frederick the Great, the War of Liberation, the career of Bismarck and the beginning of the German Empire.

PSYCHOLOGY

PROFESSOR WHITE AND DR. SNYDER

1, 2, 3. GENERAL PSYCHOLOGY

Fall, Winter and Spring Terms, 3 credits each term

An introductory course designed to give a general survey of the whole field of Psychology so as to serve as a part of a liberal education, and as a preparation for more advanced work in Psychology and other subjects which deal primarily with the phenomena of mental life. The work of the Fall, Winter and Spring Terms forms a continuous course. The work is supplemented throughout by demonstrations and experiments before the class. In the Spring Term special attention is given to the psychology of business.

Required in the Junior or Senior Year.

8. SOCIAL PSYCHOLOGY

Fall Term, 3 credits

A course dealing with the individual differences of character and intelligence, their causes and their practical significance in life; commonality; the individual and society; suggestion and choice, fashions, custom, conventionality, imitation, communication, competition, and co-operation, the psychology of advertising, the psychology of the gang, the crowd, the mob, the audience, etc.

13. GENERAL PSYCHOLOGY FOR TECHNICAL STUDENTS

One Term, 3 credits

This is an introduction to the study of human nature and the psychical forces behind material progress. Emphasis will be placed upon such problems as individual differences of character and intelligence, their causes and significance; the fundamental instincts, imitation, competition, co-operation; the many social relationships, suggestion, habit, memory, constructive imagination, the emotions, reason, will, etc.

PHILOSOPHY

I. ETHICS

PROFESSOR LINHART

Winter Term, 3 credits

A study of theoretical and practical Ethics based upon Dewey and Tuft's *Ethics*, with lectures on the field of Ethics and class-room discussions on present-day ethical questions.

Required in the Junior or Senior Year.

3. LOGIC

PROFESSOR _____

Spring Term, 3 credits

An introductory study of the general character of the thinking process, its laws of development and the methods by which thought actually

proceeds to solve the problems presented to it. The course includes some practice in reasoning, the inductive and deductive methods and in the detecting of fallacies, and some study of the principles of scientific method.

Required in the Junior or Senior Year.

4. HISTORY OF PHILOSOPHY.—ANCIENT PHILOSOPHY

PROFESSOR _____

Fall Term, 3 credits

The courses in the History of Philosophy aim to trace the history of thought, the development of the principal philosophical conceptions and systems, and their relations to the sciences, to literature and to the social and political conditions. Emphasis is placed throughout upon a first-hand acquaintance with the writings of the persons who have most influenced the thinking of mankind. The course covers the period from the Ionian Schools to the Neo-Platonists.

Text. Weber's *History of Philosophy*. Reference books: Bakewell, *Source Book in Ancient Philosophy*. Zeller, Burnet.

5, 6. HISTORY OF PHILOSOPHY—MODERN PHILOSOPHY

PROFESSOR _____

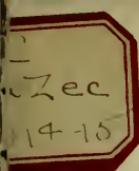
Winter and Spring Terms, 3 credits each term

These courses follow Course 4 and cover the modern period. Considerable time during the latter part of the year will be given to a study of the speculative problems of the present time, and especially to an examination of the origin and development of the conceptions of evolution together with its social and ethical bearings.

Weber's *History of Philosophy*. Reference books: Rand, *Modern Classical Philosophers*. Falckenberg, Windelband, Royce.

OTHER ELECTIVES

For other electives such as Physics, Chemistry, Biology, Economic Geology and Botany, Education, etc., consult the general Catalog.



University of Pittsburgh

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

SCHEDULE

1914-1915

THE COLLEGE
SCHOOL OF ECONOMICS
SCHOOL OF EDUCATION

NOTICE.

In this schedule S=State Hall; T=Thaw Hall; E. H.=Emergency Halls; M. I.=Mellon Institute; Ed.=Education Building; Mus.=Museum of Carnegie Institute; Gym.=University Gymnasium; T. Gym.=Gymnasium of Central Turnverein. Hours are indicated by number; the first hour begins at 8:30, the sixth at 1:30, etc. The days of the week and terms of the year are indicated by their initial letters.



The College

DEPARTMENT	COURSE	INSTRUCTOR	TERM	HOUR	ROOM
gion	1a	Linhart	F.	T. Th. 1	204 S
gion	1b		"	T. Th. 1	107 T
gion	2a	Linhart	S.	T. Th. 1	204 S
gion	2b		"	T. Th. 3	302b S
osophy	1a	Linhart	W.	T. Th. S. 1	301a S
osophy	1b	Mechlin	"	T. Th. S. 1	302b S
osophy	3a	"	S.	T. Th. S. 1	302b S
osophy	3b	"	"	M. W. F. 2	5 E. H.
osophy	3c	"	"	M. W. F. 7	302b S
osophy	4	"	F.	T. Th. 2	301b S
osophy	5	"	W.	T. Th. 2	301b S
osophy	6, 7, 8	"	F. W. S.	M. W. F. 6	104b S
osophy	9	"	S.	T. Th. 2	301b S
osophy	10	"	F.	T. Th. 8	302a S
osophy	11	"	S.	T. Th. 8	302a S
osophy	12 or 13	"	F. W. S.	T. Th. 7	301b S
chology	1, 2, 3a	Snyder	"	M. W. F. 1	104a S
chology	1, 2, 3b	Perrin	"	M. W. F. 2	104a S
chology	1, 2, 3c	Snyder	"	T. Th. S 2	104a S
chology	1, 2, 3d	Perrin	"	M. W. F. 3	104a S
chology	4	Snyder	W. S.	T. Th. S. 4	104a S
chology	6, 7a	Perrin	F. W.	M. W. F. 1	104a S
chology	6, 7b	"	"	M. W. F. 6	1 E. H.
chology	15, 16, 17	"	F. W. S.	T. 7, 8, 9, Th. 7, 8	104b S
chology	18, 19, 20	"	"	By appointment	
chology	25	Snyder	F.	T. Th. 4	104a S
chology	26	"	"	M. W. F. 7	104a S
chology	27	White	W.	M. W. F. 7	104a S
chology	30	"	F.	M. W. F. 1	104b S
chology	31	"	S.	M. W. F. 7	104a S
chology	35	"	W.	M. W. F. 1	104b S
chology	36	"	S.	M. W. F. 1	104b S
chology	37	"	W.	By appointment	104b S
chology	41	"	Any	T. Th. 7	
chology	45	Snyder	F. W. S.	By appointment	
chology	50	White, Snyder	Perrin	"	By appointment
chology	51	White	"	By appointment	
chology	1a		"	S. 1, 2	104b S
chology	31a	White	"	S. 1	104a S
tory	1, 2, 3a	Lemke	"	M. W. F. 2	204 S
tory	1, 2, 3b	Howe	"	T. Th. S. 2	214 S, 302b S
tory	1, 2, 3c	Lemke	"	M. W. F. 3	204 S
tory	1, 2, 3d	Howe	"	T. Th. S. 3	215 S, 302b S
tory	4, 5, 6a	"	"	M. W. F. 7	304 S
tory	4, 5, 6b	Lemke	"	M. W. F. 7	214 S
tory	7, 8, 9	Webster	"	M. W. F. 1	204 S
tory	10, 11, 12	Howe	"	T. Th. 4	302b S
tory	13, 14, 15	"	"	By appointment	
tory	20, 21, 22	Lemke	"	By appointment	
tory	27, 28, 29	Howe	"	By appointment	
tory	30, 31, 32	Webster	"	By appointment	
tory	36	Lemke	F.	T. Th. 2	302b S
tory	45	Scribner	"	T. Th. 4	301b S
tory	50	Sage	W.	T. Th. S. 2	404 T
tory	55	Lemke	"	By appointment	
tory	59	Sage	S.	T. Th. S. 2	404 T
tory	70, 71, 72	Lemke	F. W. S.	T. Th. 7	302b S
tory	99	Howe	"	By appointment	
tory	96, 97, 98	Webster	"	S. 1, 2,	203 S
ek	1, 2, 3	Scribner	"	M. W. F. 2	301b S
ek	1, 2, 3a	"	"	M. 4, W. 1, 1 hr. by Appt.	301b S, 402 T
ek	6, 7, 8	"	"	T. W. F. 3	301b S

DEPARTMENT	COURSE	INSTRUCTOR	TERM	HOUR	ROOM
Greek	10, 11, 12	Scribner	F. W. S.	M. W. F. 6	301b S
Greek	13, 14, 16	"	"	M. 3, T. Th. 6	301b S
Greek	19	"	F.	T. Th. 4	301b S
Greek	20	"	F. W. S.	S. 2	301b S
Latin	1, 2, 3a	Ullman	"	M. W. F. 1	404 T
Latin	1, 2, 3b	Sage	"	M. W. F. 3	404 T
Latin	1, 2, 3c	"	"	T. Th. S. 3	404 T
Latin	4, 5, 6a	Ullman	"	M. W. F. 2	404 T
Latin	4, 5, 6b	Sage	"	M. W. F. 7	404 T
Latin	7	Ullman	F.	M. W. F. 6	404 T
Latin	10	"	S.	M. W. F. 6	404 T
Latin	13	"	F.	M. W. F. 2	402 T
Latin	14	Sage	W.	M. W. F. 6	404 T
Latin	21	"	"	M. W. F. 2	402 T
Latin	22	"	S.	M. W. F. 2	402 T
Latin	11	"	F.	T. Th. S. 2	404 T
Latin	25	"	W.	T. Th. S. 2	404 T
Latin	26	"	S.	T. Th. S. 2	404 T
Latin	35	"	F. W. S.	By appointment	402 T
French	1, 2, 3a	Shelton	"	M. W. F. 1	302b S
French	1, 2, 3b	McKee	"	M. W. F. 6	302b S
French	1, 2, 3c	"	"	M. W. F. 1	203 S
French	1, 2, 3d	Shelton	"	M. W. F. 3	214 S
French	1, 2, 3e	McKee	"	M. W. F. 8	302b S
French	4, 5, 6a	Shelton	"	T. Th. S. 3	302a S
French	4, 5, 6b	Shelton	"	M. W. F. 1	301b S
French	7, 8, 9	Farnsworth	"	M. W. F. 8	301b S
French	10, 11, 12	Shelton	"	M. W. F. 6	204 S
French	13, 14, 15	Farnsworth	"	T. Th. S. 4	302a S
French	21, 22, 23	"	"	M. W. F. 3	215 S, 5 E.
French	24, 25, 26	"	"	T. Th. 4, 1 h. by Appt.	2 E. H.
French	4, 5, 6a	Shelton	"	S. 1, 2	2 E. H.
Spanish	1, 2, 3a	Boyce	"	M. W. F. 1	107 T
Spanish	1, 2, 3b	"	"	M. W. F. 3	203 S
Spanish	7, 8, 9	"	"	M. W. F. 2	302b S
Italian	1, 2, 3	Pierucci	"	T. Th. S. 1	301b S
Italian	4, 5, 6	"	"	By appointment	
German	1, 2, 3a	Arthur	"	M. W. F. 1	2 E. H.
German	1, 2, 3b	"	"	M. W. F. 3	302a S
German	1, 2, 3c	"	"	M. W. F. 6	302a S
German	1, 2, 3d	Raschen	"	M. W. F. 8	302a S
German	4, 5, 6a	Berger	"	M. W. F. 1	215 S
German	4, 5, 6b	Arthur	"	M. W. F. 2	302a S
German	4, 5, 6c	Berger	"	M. W. F. 6	304 S
German	7, 8, 9C	Raschen	"	M. W. F. 3	2 E. H.
German	7, 8, 9Ta	"	"	M. W. F. 1	214 S
German	7, 8, 9Tb	Arthur	"	M. W. F. 8	404 T
German	10, 11, 12a	Berger	"	M. W. F. 2	215 S
German	10, 11, 12b	Raschen	"	M. W. F. 7	302t S
German	13, 14, 15	Berger	"	T. Th. S. 1	302a S
German	16, 17, 18	Arthur	"	S. 2	301a S
German	19, 20, 21	Berger	"	T. Th. 2	215 S
German	22, 23, 24	Raschen	"	T. Th. 2	302a S
German	25, 26, 27	"	"	By appointment	
German	52, 53, 54	"	"	By appointment	
German	73, 74, 75	"	"	By appointment	
Public Speaking	1, 2, 3a	Lane	"	M. W. 2	203 S
Public Speaking	1, 2, 3b	"	"	T. Th. 2	107 T
Public Speaking	1, 2, 3c	"	"	T. Th. 3	204 S
Public Speaking	1, 2, 3d	"	"	T. Th. 4	3 E. H.
Public Speaking	1, 2, 3e	"	"	T. Th. 6	214 S
Public Speaking	4, 5, 6	"	"	T. Th. 7	107 T
Public Speaking	7, 8, 9	"	"	M. W. 6	203 S
English	1, 2, 3a	Heath	"	M. W. F. 1	302a S
English	1, 2, 3b	"	"	M. W. F. 2	304 S
English	1, 2, 3c	Miller	"	M. W. F. 3	302b S
English	1, 2, 3d	Valente	"	M. W. F. 3	301a S

DEPARTMENT	COURSE	INSTRUCTOR	TERM	HOUR	ROOM
lish	1, 2, 3e	Valente	F. W. S.	T. Th. S. 3	2 E. H.
lish	1, 2, 3f	Miller	"	T. Th. S. 3	301a S
lish (Economics)	1, 2, 3g	Arnold	"	M. W. F. 6	2 E. H.
lish	1, 2, 3h	Valente	"	M. W. F. 7	2 E. H.
lish	4, 5a		F. W.	M. W. Th. F. 2	2 E. H.
lish	4, 5b		"	M. W. Th. F. 7	5 S
lish	6a		S.	M. W. Th. F. 2	2 E. H.
lish	6b		"	M. W. Th. F. 7	5 S
lish	7a, 8, 9	Valente	F. W. S.	T. Th. 7	2 E. H.
lish	7b	Gibbs	F.	T. Th. S. 4	304 S
lish	10, 11, 12a	Miller	F. W. S.	T. Th. 2	304 S
lish	10, 11, 12b	"	"	T. Th. 4	204 S
lish	13, 14, 15	Heath	"	T. Th. 4	301a S
lish	17, 18, 19	Gibbs	"	M. W. F. 7	301a S
lish	20	"	F.	M. W. F. 6	301a S
lish	26a	"	"	M. W. F. 2	301a S
lish	26b	"	S.	M. W. F. 2	301a S
lish	27	"	W.	By appointment	
lish	28	"	S.	M. W. F. 3	214 S
lish	29, 30, 31	"	F. W. S.	M. W. F. 8	301a S
lish	32, 33, 34	"	"	T. Th. 6	301a S
lish	10	Miller	"	S. 1	301a S
lish	13	Heath	"	S. 4	301a S
lish	26	Gibbs	"	S. 2	302a S
hematics	1, 2, 3a	Webber	"	M. W. F. 1	5 S
hematics	1, 2, 3b	Foraker	"	T. Th. S. 2	403 T
hematics	1, 2, 3c	Webber	"	M. W. F. 3	5 S
hematics	1, 2, 3d	Jones	"	T. Th. S. 3	5 S
hematics	1, 2, 3e	Webber	"	M. W. F. 6	5 S
hematics	4	Foraker	W.	T. Th. 6	302b S
hematics	5, 6, 7, 8a	Jones	F. W. S.	M. F. 1	201 T
hematics	5, 6, 7, 8b	"	"	M. F. 6	201 T
hematics	5, 6, 7, 8c	Foraker	"	M. F. 8	201 T
hematics	9, 10, 11a	Jones	"	M. F. 2	201 T
hematics	9, 10, 11b	Holder	"	M. F. 6	110 T
hematics	11, 12, 13	Foraker	"	M. F. 3	201 T
hematics	14, 15	Webber	F. W.	M. F. 2	5 S
hematics	16, 17, 18	Holder	F. W. S.	T. Th. 6	5 S
hematics	19, 20, 21	"	F. W. S.	By appointment	101 S
hematics	64, 65, 66	"	"	By appointment	101 S
hematics	107-8-9	"	"	By appointment	101 S
hematics	110-11-12	"	"	By appointment	101 S
hematics	113-14-15	Jones	"	By appointment	101 S
hematics	119-20-21	Webber	"	By appointment	101 S
hematics	122-23-24	Holder	"	By appointment	101 S
hematics	125-26-27	Webber	"	By appointment	101 S
hematics	131-32-33	Holder	"	By appointment	101 S
hematics	137-38-39	Foraker	"	By appointment	101 S
hematics	140-41-42	"	"	By appointment	101 S
hematics	149-50-51	Webber	"	By appointment	101 S
ysics	1, 2, 3a	Wenrick	"	M. W. F. 1	105 T
ysics				Lab. 3 hr. any afternoon and S. 1, 2, 3	210 T
ysics	1, 2, 3b	"	"	M. W. F. 2	105 T
ysics				Lab. as above	
ysics	1, 2, 3c	"	"	M. W. F. 3	110 T, 105 T
ysics	1, 2, 3			Lab. as above	
ysics				Medic. Lab.	
ysics				a. W. F. 1, 2	
ysics				b. M. 7, 8, Th. 8, 9	
ysics				c. Th. 6, 7, F. 7, 8	
ysics	4, 5, 6	"	"	T. 4. Th. 7, 8, 9	105 T
ysics	7, 8, 9	"	"	By appointment	101 T
ysics	10	Bishop	Any	By appointment	101 T
ysics	11, 12, 13a	"	F. W. S.	M. T. Th. F. 3	105 T, 210 T
ysics				Lab. M.T.W.7,8,9, T. W. 1, 2, 3	

DEPARTMENT	COURSE	INSTRUCTOR	TERM	HOUR	ROOM
Physics	11, 12, 13b	Bishop	F. W. S.	M. T. Th. F. 7 Lab. as above	105 T 210 T
Physics	14, 15, 16	Wenrick	"	T. 4, Th. 7, 8, 9	105 T
Physics	30, 31	"	"	By appointment	
Biology	1, 2, 3a	Fetterman	"	T. 2 Quiz T. 3, 7, F. 9, or Th. 2	204 S 304 S 204 S
Biology	1, 2, 3b	Griffin	"	Lab. any afternoon 7, 8, 9 T. 6 Quiz and Lab. as above	203 S 304 S
Biology	4, 5	Wallgren	F. W.	(a) M. 7, 8, Th. 8, 9	301b S, 200 S
Biology	6, 7	"	W. S.	(b) Th. 6, 7, F. 7, 8	
Biology	8	"	S.	T. Th. 4, 7, 8, 9 M. W. 3, 7, 8	
Biology	9, 10, 11	Jennings	F. W. S.	T. Th. 6, 7, 8, 9	Mus.
Biology	13	"	S.	By appointment	Mus.
Biology	14, 15, 16	"	F. W. S.	By appointment	Mus.
Biology	17, 18, 19	Fetterman	"	S. 3, M. F. 7, 8, 9 F. 2, T. Th. 1, 2, 3	203 S, 200 S 203 S, 200 S
Biology	19	Wallgren	F.	M. 1, 2, 3, W. 7, 8, 9	200 S
Biology	20	"	"	T. Th. 6	200 S
Biology	21, 22	"	F. W.	T. 7, Lab. T. Th. 7, 8, 9	302a S, 200 S
Biology	23	"	F.	By appointment	
Biology	24	"	F. W. or S.	S. 6	301b S
Biology	25	Johnson	S.	W. F. 6	
Biology	26	Fetterman	"	By appointment	
Biology	27	Johnson	W.	W. F. 2	301a S
Biology	28	"	F. W. S.	T. Th. 4	215 S
Biology	29	"	F.	Th. 3	304 S
Biology	31	Wallgren	S.	M. F. 7	
Biology	32	Fetterman	"	Lab. F. 8, 9	
Biology	33	Johnson	W.	Th. 6, T. Th. 7, 8 W. 9	304 S
Biology	34	"	"	By appointment	306 S
Biology	35	"	F.	W. 9	304 S
Biology	36	Ortman	F. W. S.	By appointment	Mus.
Biology	36	Jennings	F. or W.	By appointment	Mus.
Paleontology	1, 2, 3	Ortman	F. W.	M. 7, 8	Mus.
Paleontology	4, 5, 6	"	"	By appointment	Mus.
Paleontology	3	Jennings	W. S.	By appointment	Mus.
Paleontology	4	"	F. W. S.	By appointment	Mus.
Geography	1	Ortman		By appointment	
Geography	2	"		By appointment	
Geography	3	"		By appointment	
Geography	4	"		By appointment	
Geography	5	"	W.	By appointment	
Geology	1, 2, 3	Johnson	F. W. S.	M. W. F. 1	304 S
Geology	4, 5, 6	"	"	W. F. 3	304 S
Geology	7	"	Any	T. Th. 3	306 S
Astronomy	1	Hudson	W.	By appointment	
Astronomy	2	Schlesinger	F. W. S.	By appointment	
Chemistry	1, 2, 3	Silverman	"	T. Th. 2	302 T, 308 T
				Lab. (a) M. F. 1, 2, 3 (b) M. F. 7, 8, 9 (c) T. Th. 1, 2, 3 (d) T. Th. 7, 8, 9 (e) W. 7, 8, 9 S. 1, 2, 3	
Chemistry	1, 2, 3b	"	"	T. Th. 4	302 T, 308 T
Chemistry	1, 2, 3c	"	"	Lab. as above	
Chemistry	10, 11, 12	Corliss	"	T. Th. 6	302 T, 308 T
Chemistry	13	Vogt	S.	Lab. as above	
Chemistry	20, 21, 22	Neidle	F. W. S.	M. 6, W. 8 M. W. 6 W. F. 6	302 T
				Lab. (a) M. F. 7, 8, 9 (b) W. 7, 8, 9, S. 1, 2, 3	

DEPARTMENT	COURSE	INSTRUCTOR	TERM	HOUR	ROOM
Chemistry	23	Neidle	F.	M. 2, Th. 7 M. F. 7, 8, 9 M. 2, Th. 7	302 T
Chemistry	24, 25	"	W. S.	M. F. 7, 8, 9	302 T
Chemistry	29, 30	Phillips	F. W.	W. 6, W. F. 7, 8, 9	300 T
Chemistry	31		S.	W. 6, W. F. 7, 8, 9	300 T
Chemistry	40, 41, 42	Pratt	F. W. S.	T. Th. 1 Lab. (a) M. F. 7, 8, 9 (b) T. 7, 8, 9, S. 1, 2, 3	302 T
Chemistry	43, 44, 45	"	"	By appointment	304 T
Chemistry	46, 47, 48	"	"	By appointment	304 T
Chemistry	49a-b-c	"	"	By appointment	304 T
Chemistry	50, 51, 52	Neidle	"	T. Th. 9	302 T
Chemistry	53, 54, 55	"	"	By appointment	305 T
Chemistry	59	"	S.	T. Th. S. 3	302 T
Chemistry	70, 71, 72	Pratt	F. W. S.	By appointment	304 T
Chemistry	73, 74, 75	"	"	By appointment	304 T
Chemistry	76, 77, 78	McDermott	"	By appointment	306 T
Chemistry	80, 81, 82	Clayton	"	M. F. 1, M. 7, 8, 9	306 T
Chemistry	86	Pratt	W.	By appointment	304 T
Chemistry	100, 101a, 102a	Rhodes	F. W. S.	M. F. 6	
Chemistry	101b, 102b		W. S.	By appointment	M. I.
Chemistry	103	Silverman	S.	By appointment	306 T
Chemistry	104		W.	By appointment	306 T
Chemistry	105	Brooks	S.	By appointment	M. I.
Chemistry	110-11-12	"	F. W. S.	W. 3	306 T
Chemistry	113-14-15	Phillips	"	W. 2	302 T
Chemistry	116-17-18	"	"	T. Th. 7	300 T
Chemistry	120-21-22	Clegg	"	M. W. F. 9	302 T
Chemistry	130-31-32	Silverman	"	Lab. M. F. 6, 7, 8	308 T
Chemistry	133	"	"	By appointment	306 T
				By appointment	306 T

School of Education

DEPARTMENT	COURSE	INSTRUCTOR	TERM	HOUR	ROOM
Principles of Education	1a	Basset	S.	M. W. F. 1	1 E. H.
Principles of Education	1b	"	"	M. W. F. 6	214 S
Principles of Education	2	"	F. W.	M. W. F. 6	215 S
Principles of Education	3	Chambers	F.	M. W. 4.15-6	214 S
Principles of Education	4	Sies	S.	M. W. F. 6	215 S
Principles of Education	8	Basset	F. W. S.	T. 7:15-9	214 S
Principles of Education	13a	Chambers, Sies, Basset	"	W. 7:15-9 (bi-weekly)	214 S
Principles of Education	13b	Robertson, Kirby, Lyons	"	W. 7:15-9 (bi-weekly)	215 S
History of Education	1a	Lyons	"	M. W. F. 2	214 S
History of Education	1b	"	"	M. W. F. 7	215 S
History of Education	2	"	W.	M. W. 4:15-6	214 S
History of Education	2a	"	F. W. S.	S. 1, 2	200 T
History of Education	4	"	"	S. 3, 4	5 E. H.

DEPARTMENT	COURSE	INSTRUCTOR	TERM	HOUR	ROOM
Educational Administration	1	Robertson	F. W. S.	F. 8, 9	214 S
Educational Administration	3	Sies	"	S. 1, 2	214 S
Educational Administration	4	"	F. W. S.	T. 4:15-6	214 S
Educational Administration	5	"	"	S. 3, 4	214 S
Educational Administration	9	"	"	Th. 7:15-9	214 S
Educational Administration	10	"	F. W.	W. 4:15-6	215 S
Educational Administration	12	"	F. W. S.	M. 7:15-9	214 S
Secondary Education	1	Robertson	S.	M. W. 4:15-6	214 S
Secondary Education	2	Kirby	F. W. S.	Th. 7:15-9	215 S
Elementary Education	1	"	S.	M. W. 4:15-6	215 S
Elementary Education	1a	"	F. W. S.	S. 3, 4	215 S
Elementary Education	2	Carmalt	"	S. 1, 2	207 Ed.
Elementary Education	4	"	"	T. 7:15-9	207 Ed.
Elementary Education	5	"	"	S. 3, 4	207 Ed.
Elementary Education	8	Harris	"	Th. 7:15-9	101 Ed.
Elementary Education	9	Carmalt	F. W.	F. 4:15-6	207 Ed.
Elementary Education	10	"	S.	W. F. 4:15-6	207 Ed.
Elementary Education	12	Kirby	F. W. S.	F. 7:15-9	215 S
Elementary Education	14	"	"	S. 1, 2	215 S
Elementary Education	15	"	"	T. 7:15-9	215 S
Clinical Psychology	1	Basset	F.	S. 3, 4	102 Ed.
Clinical Psychology	2	"	W. S.	S. 3, 4	102 Ed.
Clinical Psychology	3	"	F. W. S.	Th. 4:15-6	102 Ed.
Clinical Psychology	4	"	"	By appointment	102 Ed.
Clinical Psychology	5	"	"	By appointment	102 Ed.
Childhood Education	1	Mrs. Sies, Pracht	"	S. 3, 4	107 T
Childhood Education	2	Mrs. Sies	"	F. 3	107 T
Childhood Education	3	Waite	F. W.	Th. 6, 7	104 Ed.
Childhood Education	4	"	S.	Th. 6, 7	104 Ed.
Childhood Education	5	Lutz	F.	W. 3	107 T.
Childhood Education	6	Waite	F. W. S.	W. 7, 8	104 Ed.
Childhood Education	7	Lutz	W. S.	W. 3	107 T.
Childhood Education	8	Mrs. Sies, Chambers	F. W. S.	T. 8	204 S
Childhood Education	9	Waite	S.	F. 6	104 Ed.
Play	1	Cook	F.	W. S. 1	5 E. H.
Play	2	Ashe	W. S.	W. S. 1	5 E. H.
Play	3	Burckhalter, Gahan, Ferguson	F. W. S.	T. Th. F. 1, 2	T. Gym.
Play	4	Gahan, Ferguson	"	S. 3, 4	Gym.
Play	6	Heinrich	"	S. 1	107 T
Play	7	Whiteman	W. S.	S. 2	107 T
Play	8	Mrs. Sies	F. W. S.	T. 4	1 E. H.
Play	10	Canfield	"	T. 3	T. Gym.
Fine & Industrial Arts	1	Kniffin	"	M. Th. 1, 2, 3	205 Ed.
Fine & Industrial Arts	2	"	"	T. Th. 1, 2	205 Ed.
Fine & Industrial Arts	3	"	"	M. F. 1, 2, 3	205 Ed.
Fine & Industrial Arts	5	"	"	W. 4:30-6:15	105 T
Fine & Industrial Arts	6	"	"	T. Th. 1, 2	205 Ed.
Fine & Industrial Arts	8	"	"	T. 3	204 Ed.
Fine & Industrial Arts	9	Chapin	"	W. 2, 3, F. 7, 8	205 Ed.
Fine & Industrial Arts	11	Clayter	"	S. 1, 2	205 Ed.

DEPARTMENT	COURSE	INSTRUCTOR	TERM	HOUR	ROOM
Fine & Industrial Arts	12	Clayter	F. W. S.	S. 3, 4	205 Ed.
Fine & Industrial Arts	13	"	"	T. 6	206 Ed.
Fine & Industrial Arts	14a	"	"	M. F. 6, 7	201 Ed.
Fine & Industrial Arts	14b	"	"	M. Th. 7:15-9	201 Ed.
Fine & Industrial Arts	15a	"	"	M. F. 6, 7	201 Ed.
Fine & Industrial Arts	15b	"	"	M. Th. 7:15-9	201 Ed.
Fine & Industrial Arts	16a	"	"	T. Th. 6, 7	202 Ed.
Fine & Industrial Arts	16b	"	"	M. Th. 7:15-9	202 Ed.
Fine & Industrial Arts	17a	"	"	T. F. 4:15-6	202 Ed.
Fine & Industrial Arts	17b	"	"	M. Th. 7:15-9	202 Ed.
Household Economy	1	Pyre	"	T. F. 1, 2	103 Ed.
Household Economy	1a		"	S. 1, 2	103 Ed.
Household Economy	2	"	"	M. 3, 4, Th. 1, 2	103 Ed.
Household Economy	2a	"	"	M. 7:15-9	103 Ed.
Household Economy	3	"	"	T. F. 3	103 Ed.
Household Economy	3a	"	"	S. 3	103 Ed.
Household Economy	4	"	F. W. S.	T. Th. 4	103 Ed.
Household Economy	5	"		S. 4	103 Ed.
Household Economy	6	Jones	"	T. 5, 6, Th. 6, 7	203 Ed.
Household Economy	6a		"	M. 7:15-9	203 Ed.
Household Economy	7	"	"	M. T. 1, 2	203 Ed.
Household Economy	7a	"	"	S. 1, 2	203 Ed.
Household Economy	7b	"	"	W. 7:15-9	203 Ed.
Household Economy	8	"	W.	M. 7, 8, F. 6, 7	203 Ed.
Household Economy	8a	"		S. 3, 4	203 Ed.
Household Economy	9	"	F. S.	M. 7, 8, F. 6, 7	203 Ed.
Household Economy	9a	"		S. 3, 4	203 Ed.
Household Economy	10	"	F. W. S.	M. 6	203 Ed.
Household Economy	11	Pyre	S.	T. Th. 4	103 Ed.
Household Economy	12		F. W. S.	By appointment	103 Ed.
Household Economy	13	Pyre, Jones	"	Th. 3	103 Ed.
Music	2		Canfield	F.	204 S
Music	2a	"		M. W. F. 7	204 S
Music	3	Kenley	W.	S. 1, 2	204 S
Music	3a		"	M. W. F. 7	204 S
Music	4	Canfield	S.	S. 1, 2	204 S
Music	4a		"	M. W. F. 7	204 S
Music	6a	"	F. W. S.	S. 1, 2	204 S
Music	6b	"		T. Th. 6	204 S
Music	7	Kenley	"	S. 3, 4	204 S
Music	8		"	S. 3, 4	104 Ed.
Music	12	Earhart	"	Th. 4:15-6	204 S
Music	14	Canfield	"	T. 7:15-9	204 S
Music	16	Kenley	F. W.	T. Th. 7	204 S
Nature Study	1	Shourek		M. F. 8	204 S
Nature Study	2	"	M. W. 9	101 Ed.	
			"	T. Th. 9	101 Ed.

School of Economics

DEPARTMENT	COURSE	INSTRUCTOR	TERM	HOUR	ROOM
Economics	1, 2, 3a	Davison	F. W. S.	M. W. F. 2	107 T
Economics	1, 2, 3b	Wright	"	M. W. F. 6	105 T
Economics	1, 2, 3c	Tyson	"	T. Th. S. 4	107 T, 1 E. H.
Economics	3E	Davison	F.	M. W. F. 3	403 T
Economics	4, 5, 6	Holdsworth	F. W. S.	W. F. 2	200 T
Economics	7, 8, 9	Holdsworth, Davison	"	T. Th. 2	200 T
Economics	10, 11, 12	Davison	"	T. Th. 6	200 T
Economics	13	"	F.	M. W. 1	200 T
Economics	16	"	W.	M. W. 1	200 T
Economics	19	"	S.	M. W. F. 1	200 T
Economics	21	Holdsworth	F.	W. F. 3	200 T
Economics	24	"	W.	W. F. 3	200 T
Economics	27	"	S.	W. F. 3	200 T
Economics	28	"	"	By appointment	
Economics	30, 31, 32	"	F. W. S.	T. Th. 3	200 T
Economics	34, 35	Davison	F. W.	T. Th. 1	200 T
Economics	36	"	S.	T. Th. 1	200 T
Economics	37	Flocken	F.	M. W. 6	200 T
Economics	38	"	W.	M. W. 6	200 T
Economics	39	"	S.	M. W. 6	200 T
Economics	43, 44, 45	Wright	F. W. S.	M. W. 1	110 T
Economics	46	"	S.	T. Th. S. 1	
Economics	47, 48, 49	Flocken	F. W. S.	T. 2	105 T
Economics	47, 48, 49a	Zinsmaster	"	M. W. 1	112 T
Economics	47, 48, 49b	"	"	M. W. 3	112 T
Economics	47, 48, 49c	"	"	T. Th. 1	112 T
Economics	47, 48, 49d	"	"	T. Th. 4	112 T
Economics	50, 51, 52	Flocken	"	T. Th. 3	110 T
Economics	53, 54, 55	"	"	Th. 7:45-9:45	201 T
Economics	61	"	F.	T. Th. 4	110 T
Economics	59	"	W.	T. Th. 4	110 T
Economics	60	"	S.	T. Th. 4	110 T
Economics	65, 66, 67	Hiller	F. W. S.	F. 7:45-9:45	200 T
Economics	68	Flocken	"	By appointment	
Journalism	1, 2, 3	Arnold	F. W. S.	T. Th. 8	200 T
Journalism	4, 5, 6	Williams	"	M. W. 9	200 T
Journalism	7, 8	Arnold	W. S.	M. W. 7	
Journalism	9	"		By appointment	
Journalism	10, 11, 12	Gibbs	F. W. S.	T. Th. 6	301b S
Journalism	13	Arnold		By appointment	
Journalism	14	"		By appointment	
Journalism	15, 16, 17	"	F. W. S.	By appointment	
Journalism	18	"		By appointment	
Journalism	19	"		By appointment	
Journalism	20, 21, 22	"	F. W. S.	By appointment	
Journalism	23	"		By appointment	
Journalism	24	"	F.	M. W. 7	110 T
Advertising and Salesmanship	1, 2, 3	"	F. W. S.	T. Th. 7	200 T
Advertising and Salesmanship	4, 5, 6	"	"	M. 2	200 T
Political Science	1, 2, 3a	Thorpe	F. W. S.	T. Th. 3	107 T
Political Science	1, 2, 3b	Wright	"	T. Th. 6	107 T
Political Science	4, 5, 6	"	"	T. Th. 4	200 T
Political Science	9, 10, 11	Thorpe	"	M. W. 7	200 T
Political Science	12, 13, 14	"	"	M. W. 8	200 T
Political Science	15, 16	"	F. W.	By appointment	
Political Science	18	"	S.	T. Th. 2	110 T
Political Science	20, 21	"	F. W.	T. Th. 2	110 T
Political Science	22	"	F. W. S.	By appointment	
Sociology	1, 2, 3a	Tyson	"	T. Th. 6	105 T

DEPARTMENT	COURSE	INSTRUCTOR	TERM	HOUR	ROOM
Sociology	1, 2, 3b	Todd	"	M. W. 7	201 T
Sociology	4, 5, 6	Tyson	"	W. F. 2	1 E.
Sociology	7, 8, 9	Todd	"	T. Th. 1	201 T
Sociology	10, 11, 12	Todd, Tyson	"	By appointment	
Sociology	13, 14, 15	Todd, Tyson	"	S. 3, 4	200 T
Sociology	16, 17, 18	Tyson	"	M. W. 8	403 T
Sociology	110	Todd	"	By appointment	
Sociology	120	Todd, Tyson	"	By appointment	
History	4, 5, 6a	Howe	"	M. W. F. 7	304 S
History	4, 5, 6b	Lemcke	"	M. W. F. 7	214 S
History	6, 7, 8E	Thorpe	"	M. W. F. 6	107 T

Physical Education

COURSE	INSTRUCTOR	TERM	HOUR	ROOM
Physical Training for Men	Provin, Landis	F. W. S.	M. 2, 3, M. 8, 9, T. 1, 2, T. 3, 4, T. 6, 7, T. 8, 9, W. 2, 3, W. 6, 7, W. 8, 9, Th. 1, 2, Th. 6, 7, F. 2, 3, or F. 8, 9	Gym.
Physical Training for Women	Provin	"	M. 6, 7, Th. 3, 4 or Th. 8, 9	Gym., T. Gym.
Swimming for Men	Taylor	"	M. 7, 8, 9 or W. 7, 8, 9	Gym.
Swimming for Women	"	"	F. 7, 8, 9	"
Lectures for First Year Men	Frost	F. W.	W. 4 (bi-weekly)	"
Lectures for First Year Women		"	W. 4 (bi-weekly)	"

Assemblies

The fourth hour on Mon., Wed., and Fri. is set apart for assembly purposes. On Monday the hour is given to meetings of various student organizations. On Wednesday assemblies of the different schools are held at which attendance is required except for those required to attend lectures in physical education at the same hour. The general university assembly is held on Friday in Soldiers' Memorial Hall, attendance at which is required of all students.

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1915/16

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ANNOUNCEMENT SERIES

THE
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1915-1916



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1915-1916



SCHOOL OF ECONOMICS

CALENDAR

1915-16

September 20-25..... Monday-Saturday inclusive—Registration week.
September 27..... Monday—First Semester begins.
November 25-27..... Thursday to Saturday—Thanksgiving recess.
December 20..... Monday—Christmas vacation begins.
January 3..... Monday—Christmas vacation ends.
January 31..... Monday—Mid-year examinations begin.
February 7..... Monday—Second Semester begins.
February 22..... Tuesday—Washington's Birthday.
February 28..... Monday—Charter Day.
April 17..... Monday—Easter vacation begins.
April 24..... Monday—Easter vacation ends.
May 30..... Tuesday—Decoration Day.
June 5..... Monday—Final examinations begin.
June 11..... Sunday—Baccalaureate Sermon.
June 12-17..... Monday to Saturday inclusive—College Entrance
Board Examinations for admission.
June 14..... Wednesday—Commencement.
June 26..... Monday—Summer Term begins.

FACULTY

SAMUEL BLACK McCORMICK, D.D., LL.D., Chancellor.
S. B. LINHART, A.M., D.D., Secretary of the University.
ALBERT ELLIS FROST, A.M., Sc.D., Registrar.

JOHN THOM HOLDSWORTH, Ph.D., Dean, Professor of Finance and Economics.

FRANCIS NEWTON THORPE, Ph.D., LL.D., Professor of Political Science and Constitutional Law.

ARTHUR JAMES TODD, Ph.D., Professor of Sociology.

IRA GRAESSLE FLOCKEN, A.M., Professor of Accounting.

FRANCIS DOUGHTEN TYSON, Ph.D., Assistant Professor of Sociology.

THOMAS REYNOLDS WILLIAMS, A.B., Instructor in Journalism.

CHARLES ARNOLD, A.B., Instructor in Journalism and Advertising.

ALBERT BAYARD WRIGHT, A.M., Instructor in Political Science.

HOWARD CARSON KIDD, A.M., Instructor in Economics.

....., Instructor in Finance.

....., Instructor in Commerce.

WARREN WOODLING ZINSMASTER, B.S. IN EC., Instructor in Accounting.

ADDITIONAL INSTRUCTORS IN THE EVENING SCHOOL OF ECONOMICS, ACCOUNTS AND FINANCE.

JOSEPH ALBERT BECK, B.S., LL.B., Instructor in Economics.

JOSEPH ROYER CONRAD, Instructor in Business Law.

FRANK WILBUR MAIN, C.P.A., Instructor in Accounting.

AUGUST HILLER, C.P.A., Instructor in Cost Accounting.

AUBREY LEONARD ASHBY, A.B., LL.B., Instructor in Corporation Finance and Business Law.

JAMES ORION MACLEAN, C.P.A., Instructor in Accounting.

FRANK HUSTON ECKELS, Instructor in Accounting.

JOHN T. DUFF, JR., LL.B., Instructor in Business Law.

....., Instructor in Accounting.

MEMBERS OF OTHER FACULTIES WHO GIVE INSTRUCTION
IN THE SCHOOL OF ECONOMICS

JESSE HAYES WHITE, PH.D., Professor of Psychology.
LINCOLN ROBINSON GIBBS, A.M., Professor of English.
FRANK HARDY LANE, A.M., Professor of Public Speaking.
FERDINAND BERGER, A.M., Professor of German.
JOHN FREDERIC LEWIS RASCHEN, LITT.D., Professor of German.
JOHN M. MECKLIN, PH.D., Professor of Philosophy.
AARON MOYER SNYDER, PH.D., Assistant Professor of Psychology.
JOHN KEMERER MILLER, A.B., Assistant Professor of English.
WILLIAM OLIVER FARNSWORTH, PH.D., Assistant Professor of Romance Languages.
HOMER JEPHTHA WEBSTER, PH.D., Instructor in History.
EDMUND GRANT HOWE, A.M., Instructor in History.
CARL FREDERICK LEMKE, A.B., Instructor in History.
ISAAC BOYCE, D.D., Instructor in Spanish.
LOUIS JAY HEATH, A.M., Instructor in English.
FLEMING ALLEN CLAY PERRIN, PH.D., Instructor in Psychology.
JOHN VALENTE, B.S., Instructor in English.
JOHN LEWIS JONES, PH.D., Instructor in Mathematics.
LEROY ALBERT ARTHUR, B.S., A.B., Instructor in German.
JOHN FREDERICK KLEIN, A.M., Instructor in German.
GEORGE MAHAFFEY PATTERSON BAIRD, A.B., Instructor in English.
CHARLES SHIVELY MILLER, Physical Director.
HARRY HOLTON PROVIN, Director of Gymnasium.

AIM AND SCOPE

The School of Economics was established to meet the needs of young men who desire to secure a more definite and practical preparation for business careers than that afforded by the old-time general college course. The universities are providing increasingly thorough preparation for those who purpose entering such professions as law, medicine, engineering, teaching and the ministry. Modern conditions demand of the young man who intends to engage in commercial, industrial, and financial pursuits equally thorough training and preparation. Just as the prospective lawyer or doctor is now obliged to secure preliminary training in the schools before engaging in active office practice, so must the young man who proposes to enter upon a business career get preliminary training in schools of commerce and business administration. There is no dearth of men who can fill mere clerical positions, but few are equipped for managerial responsibilities which require not only intelligence and energy, but broad understanding of the complex interrelations and problems of modern business.

The School of Economics aims to furnish mental discipline and broad liberal culture, and at the same time to provide a thorough training in the fundamental principles of business, fitting young men for careers in Business Management, Banking and Finance, Accountancy, Railway Administration, Journalism, Social Service, Civic Work, the Consular Service and Foreign Trade. In these and other fields there is a strong demand for more efficient service, and young men looking forward to business pursuits are seeking the training that will give greater efficiency and lead to more certain advancement. The young man who starts with a disciplined and well-informed mind, a broad knowledge of the fundamental principles of business, and a special knowledge of certain branches of business will more quickly gain promotion from routine work to positions of trust and responsibility.

It is not contended for this kind of university training that it can take the place of actual business experience, but the man thus trained will be able to turn subsequent experience to more efficient use. The School of Economics does not presume to create business genius, to give students the business judgment of mature men, or to create experts in any particular branch of business; it does aim, however, to assist the student to develop powers of analysis and interpretation necessary to sound judgment in business affairs and to furnish him a solid groundwork of fundamental principles applicable to the business in which he may engage.

PUBLIC SERVICE

In the public and government service, as well as in private enterprise, there is an increasing demand for specially trained men who combine technical knowledge with broad vision and grasp of business principles. Slowly the European idea of applying expert service and efficient management to public affairs is gaining ground in this country. New opportunities are opening up to the specially trained man in commissions and bureaus of various sorts, and in such semi-public organizations as boards of trade, chambers of commerce, bureaus of municipal research and efficiency, and other civic and commercial bodies.

SOCIAL AND PHILANTHROPIC WORK

The increasing interest in civic and philanthropic activities calls for specially trained men and women to assume the leadership and direction of these movements. The School of Economics provides thorough training for social, philanthropic, settlement, and civic work. Students secure practical experience in various lines of social work through coöperation with the charitable and philanthropic organizations of the city.

CITIZENSHIP

The School of Economics aims to provide the broadest possible preparation for citizenship. The rights, duties, and responsibilities of citizenship are inculcated not merely through the interpretation of forms, charters, constitutions and organizations of various forms of government—the framework and machinery, but rather by contact with and analysis of live, present-day problems, particularly the problems of the city—efficient municipal government, municipal taxation, housing, sanitation, recreation, fire prevention, protection of the water and milk supply—in short, all those problems which effect every citizen in the modern municipality.

ACCOUNTANCY

The profession of accountancy though comparatively new in this country has attained a rank and importance comparable with such older professions as law, medicine, or engineering. By reason of its high standard of social service, its increasing importance in the field of business administration, and its financial rewards, it offers peculiar attractions to young men of special training and ability.

Business managers and executives must be in constant touch with every department of their organizations. To supply the necessary information the services of the accountant who can analyze and solve accounting and managerial problems are becoming more essential. "The accountant is expected to show the true cost of every product; to measure the efficiency of the men and machines employed; to trace the effects upon profits of new methods and inventions, and in all other ways to analyze the business and measure accurately all its forces and factors." Because

of his intimate and accurate knowledge of the administrative side of the business, the accountant has unusual opportunities to advance to a position of responsibility and trust. The stockholders and directors of corporations and business concerns, as well as the public, are depending more and more upon the accountant to examine, audit, and interpret the books and records of the business. He must be equipped to render expert opinion and advice upon many phases of business activity.

To meet the need for this training special courses are prescribed for students who plan to enter upon the practice of private or public accountancy. The advanced courses are planned to meet the requirements of the State Board examinations for the degree of Certified Public Accountant. (C.P.A.)

Similar courses are offered in the Evening School of Economics, Accounts and Finance, for men actively employed in accounting and related pursuits.

TEACHING OF COMMERCIAL SUBJECTS

The demand for young men who have had broad collegiate training and have specialized in those subjects which will fit them to teach commercial branches in the secondary schools exceeds the supply. The successful teacher in the modern commercial high school or department must have more than an elementary knowledge of bookkeeping, stenography, typewriting, etc. He must have broad training in economics, commerce, industry, finance, and business organization and management, coupled with a clear understanding of the relation of technical subjects to the general science of business. The courses in the School of Economics provide the best possible preparation for teaching in commercial departments and in university schools of commerce. The prospective teacher, however, should elect in the School of Education such courses in the principles of education and pedagogy as will adequately equip him for the teaching of these subjects.

JOURNALISM

Journalism has come to be recognized as a profession requiring equally thorough and specialized preparation as for other professions. No vocation offers larger opportunities for public service, and the financial returns are attractive to the man who has aptitude, ability and special training for journalistic work. There is an increasing demand for capable, trained reporters, special writers, correspondents, ad-writers, editors, in all departments of journalism. The multiplication of financial, technical and trade journals, and the issue of publications by private business concerns has caused a demand for well-trained men to fill editorial and managerial positions on such publications, and for men who can write intelligently and forcefully upon business subjects of general public interest.

The School of Economics aims to provide a broad and thorough training in those basic subjects a knowledge of which is essential to the

highest success in this important profession—English, foreign languages, history, economics, political science, public law, finance, industrial organization and management, sociology, philosophy, ethics, psychology. In addition professional courses are given by experienced newspaper men in the principles of journalism, news-gathering, reporting, news-writing, editorial writing, advertising, technical journalism, newspaper ethics, etc. Practice in the actual work of newspaper making is obtained through the medium of the University student publications, assignments on city newspapers, and other journalistic activities.

CONSULAR SERVICE AND FOREIGN TRADE

The School of Economics provides a course of training that will prepare the student not only for consular examinations, but also for efficient work in the Consular Service and in business houses engaged in foreign trade. With the placing of the Consular Service upon a basis of competitive examinations, this field offers increasing opportunities to young men of ability and special training.

The growing importance of our commercial relations with the Latin-American republics and with the countries of the Orient emphasizes the attractive business opportunities for young men with the proper training in the principles and methods of foreign trade and with command of the Spanish, Portuguese, and other commercial languages.

FOREIGN COMMERCIAL LANGUAGES

Students in the School of Economics are advised to specialize in those foreign languages most widely employed in foreign trade. Courses in Commercial German, Commercial French and Commercial Spanish provide a working knowledge of these languages for commercial purposes. The business methods and customs, trade reports, catalogs, and periodicals of foreign countries are studied and discussed in the language of the country involved. Special attention is given to the acquisition of fluent and correct use of foreign languages, both in conversation and in commercial correspondence.

As the demand arises similar instruction will be given in the languages of other European and Oriental countries.

COMMERCIAL ENGINEERING

Students preparing for the management of certain lines of manufacturing and merchandizing may find it profitable to elect courses in Industrial Chemistry, Economic Botany, Economic Geology, Physics, Industrial Engineering, etc. In the profession of engineering there is a growing demand for men with more thorough business training, while in many lines of business some knowledge of engineering is invaluable. By arrangement with the College, the School of Engineering and the School of Mines, opportunity will be afforded Juniors and Seniors in

the School of Economics to elect such courses as will give an insight into the engineering problems that confront contractors, superintendents and managers of manufacturing establishments, and others having to do with commercial engineering.

COMBINED ECONOMICS-LAW COURSE

The practice of law involves more and more the consideration and interpretation of questions arising out of the business world. Thorough training in the fundamentals of economic, political and social science and a knowledge of the processes and principles involved in business organization and management are becoming more essential for the successful practice of law. This training and information cannot be given in the law school; its function is to provide professional legal training. Many leading law schools now emphasize the importance of such pre-legal courses as are given in the School of Economics as a preparation for the study of law.

All prospective law students are urged to take the full four years pre-legal preparation. The student who cannot afford to spend four years in the School of Economics and three years in the School of Law may combine the two courses and receive both degrees in six years by electing the Freshman Law Course in his fourth year. The degree of the School of Economics will be granted at the end of the fourth year and the degree of Bachelor of Laws at the end of the sixth year.

The attention of the prospective law student is drawn to the rules governing registration as students at law and admission to the Bar of the Supreme Court of Pennsylvania. No person can be registered as a student at law until he has received his academic degree or has passed the preliminary examinations. After registering as a law student three years must be spent in the study of law before the applicant may come before the State Board for final examination for admission to the bar of the Supreme Court in Pennsylvania. (For particulars, see the bulletin of the School of Law.)

Under the foregoing rules the student who takes the combined six years course will not, without taking the preliminary examinations, be eligible to take the final Bar examinations until one year after completing his law course. The student is advised, therefore, to complete the full four year academic course before entering the School of Law, or, failing that, to take the preliminary law examination sometime before the close of the third year of his undergraduate course.

Prospective law students who do not present upon entrance to the School of Economics the equivalent of the Latin required for the preliminary examinations, and who have not already passed said examination, will be required to satisfy these Latin requirements before being certified for entrance to the School of Law.

TWO YEARS OF PRESCRIBED WORK

The first two years of the regular course in the School of Economics is substantially uniform for all students. In these two years the student lays a thorough foundation for the more technical subjects which he elects in his Junior and Senior years to prepare him for his chosen life work. The man who upon entering college has not decided upon the line in which he will specialize may thus find opportunity to test his ability and aptitude in the various lines offered by the School. It will be observed that while proper stress is laid upon such "cultural" studies as language, literature, and history, yet from the outset of his course the student is given instruction in those "practical" subjects which will provide him with a tool useful in every day business life. -

PRACTICAL WORK

In order that the students may obtain as much practical experience as possible in the lines of work for which they are preparing, the effort is made, through the Student Employment Bureau and otherwise, to help them secure suitable positions during the summer vacations. In this way every student will get nearly a year's practical business experience during the course of his four years at the University. It is hoped, eventually, to make this amount of practical experience a requirement for graduation from the School of Economics. This practical work will, of course, be of great assistance in helping the student to meet the expenses of his university course.

ADVANTAGE OF LOCATION

Pittsburgh offers unusual advantages to the student who looks forward to a business career in any of the above-indicated lines. Its great industrial, commercial, mercantile and financial establishments provide a laboratory of unsurpassed advantage. Regular visits of inspection are made to mills, factories, wholesale and retail stores, banks, brokerage offices, and other industrial, financial and commercial establishments. The sociology classes make visits to various charitable, penal, and corrective institutions to secure first hand information and insight into their problems and methods. The Chamber of Commerce has officially recognized the School as "an effective coöperative agency for forwarding the plans of the Chamber in matters of trade extension, as well as in the sociological and economic betterment of the community." The School of Economics aims to coöperate with every commercial, social and civic activity of the city, and to keep its work in line with their needs.

REQUIREMENTS FOR ADMISSION

All candidates for admission to the School of Economics must be at least sixteen years of age and furnish testimonials of good moral character. Those who come from other colleges must present certificates of regular dismissal.

ENTRANCE REQUIREMENTS

Students applying for admission must offer fifteen units, a unit being a subject in which the work done is the equivalent of four recitations per week of one hour each for one year, or five of three-quarters of an hour each.

All regular students must offer six units as follows:

English, 3 units.

Mathematics, 2 units.

Social Science (History, Civics, Economics), 1 unit.

The remaining nine units may be offered from the following:

Ancient Languages	Biology
Modern Languages	Physiology
English	Physiography
Mathematics	Commercial Geography
History	Bookkeeping
Civics	Commercial Law
Economics	Stenography
General Science	Drawing
Physics	Manual Training
Chemistry	Agriculture

CONDITIONS

No applicant with less than twelve credits will be admitted to the Freshman Class as a regular student. It is highly desirable that students should enter without any conditions whatever, but if permitted to enter conditions must be removed in part before the Sophomore year, and wholly before the Junior year.

ADVANCED STANDING

A. From High and other Preparatory Schools.

Students entering with more than 15 units may receive credit for work in excess of 15, when such work includes courses given under the same name in the University, by taking special examination in this work.

B. From other Colleges.

Students from other colleges, whose entrance requirements are equivalent to those of the University, and which offer equivalent courses of study, are credited with work done in such colleges, and admitted to advanced standing without examination.

Examinations for advanced standing are given during the week in

June in which entrance examinations are being held. For exact date consult the calendar for the year. As a condition for providing these examinations application in writing must be made in the office of the Registrar not later than June 1st of any year, for which a blank is furnished.

CREDITS

All University courses are recorded in terms of "credits." A "credit" is given for eighteen hours of recitation, lecture, discussion, or other class exercise. Thus a course requiring two hours of recitation a week for one semester (about eighteen weeks) gives two credits. In the description of courses the number of credits given for each course is stated

DEGREES

Upon the satisfactory completion of the required work, with a minimum of 128 credits, the degree of Bachelor of Science in Economics will be conferred.

SPECIAL STUDENTS

Students who are unable to take the full four year course, but who by reason of maturity, business experience, or general education, are qualified to do the work, may be admitted as special students. No degree will be conferred upon students taking only a special course.

The courses of special students will be arranged according to the previous training and the particular needs of the individual applicant.

EVENING SCHOOL

Many of the courses given in the School of Economics are offered also in the Evening School of Economics, Accounts, and Finance. Though designed primarily for men engaged in business, who cannot take advantage of the full four year course, the courses in the Evening School are open to day students, and credit may be given for courses satisfactorily completed therein.

For Evening School courses, see Evening School Bulletin.

TUITION

The annual tuition for a regular student is \$150, payable, if preferred, in two instalments—\$80 for the first semester and \$70 the second semester. *This tuition includes all fees*—matriculation, student activities fees, laboratory fees, and the athletic fee which entitles the student to admission to all University athletic events. There are no other payments to the University except the diploma fee, to be paid by seniors before graduation, and charges for materials used in laboratory courses.

Registration for each semester must be completed before the day on which the semester opens. A fine of \$3 is charged for registration after that date.

REQUIRED COURSES

FRESHMAN YEAR

		First Semester	Second Semester
*German 1, 2, or 3, 4 or *French 1, 2, or 3, 4 or Spanish 1, 2			
English 1, 2.....	3	3	
Economic Resources (Economics 3, 4).....	2	2	
Economics 1, 2.....	3	3	
Accounting 1, 2.....	3	3	
Government (Political Science 1, 2).....	2	2	
Physical Education	1	1	

SOPHOMORE YEAR

German C3, 4, or 11, 12 or French C3, 4, or Spanish C3, 4		3	3
English 5, 6; or 7, 8; or 9, 10.....	2	2	
Public Speaking 1, 2.....	2	2	
American History 7E, 8E, or European History 5, 6		3	3
Money and Banking (Economics 5, 6).....	2	2	
Sociology 1, 2.....	2	2	
Municipal Government (Politics 5, 6) or Accounting 3, 4, or Journalism 1, 2		2	2
Physical Education	1	1	

*Students entering with one unit of credit in German or French will as a rule be required to take Courses 1, 2; with two or more units, Courses C3, C4. Exception to this rule may be made in the case of students whose preparation and record have been of the best.

OTHER REQUIRED COURSES

In addition to the foregoing all regular students are required to complete before graduation the following courses: Psychology 1, 2; Ethics (Philosophy 5); and Logic (Philosophy 2).

JUNIOR AND SENIOR ELECTIVES

In addition to the foregoing required courses, students must elect courses which will give a total of not less than 128 credits required for graduation. Though a considerable range of election will be permitted to allow the student to study those branches that will be of most value to him in his chosen career, his courses must be taken mainly in the three leading groups—Economics (including Accounting and Journalism), Political Science, Sociology.

ELECTIVES IN ECONOMICS

	First Semester	Second Semester
Transportation (Economics 11, 12).....	2	2
Modern Industries (Economics 13).....	2	..
Industrial Management (Economics 16).....	..	2
Labor Problems (Economics 19).....	..	2
Corporation Finance (Economics 21).....	2	..
Investments (Economics 24).....	..	2
Brokerage (Economics 27).....	2	..
Banking Problems (Economics 103).....	2	..
Credits (Economics 28).....	..	2
Public Finance (Economics 31, 32).....	2	2
Commercial History and Policy (Economics 35).....	2	..
Foreign Trade Relations (Economics 36).....	..	2
Life Insurance (Economics 37).....	2	..
Property Insurance (Economics 38).....	..	2
Statistics (Economics 40).....	..	2
Business Law (Economics 43, 44).....	2	2
Advanced Economics (Economics 101, 102).....	2	2

ELECTIVES IN ACCOUNTING

Principles of Accounting 3, 4.....	2	2
Financial Accounting 5.....	2	..
Government and Utility Accounting 6.....	..	2
Auditing 7, 8.....	2	2
Cost Accounting 9.....	2	2

	First Semester	Second Semester
Mine Accounting 12.....	..	2
Accountancy Problems 13, 14.....	2	2
Accounting Practice 101, 102.....	2	2
Accountancy of Investment (Mathematics 17, 18)	2	2

ELECTIVES IN JOURNALISM

News Gathering and Writing 1, 2.....	2	2
Journalism Laboratory 3, 4.....	2	2
Newspaper Editing and Making 5, 6.....	2	2
Special Feature Writing 7, 8.....	2	2
Editorial Writing 9.....	2	..
Short Story Writing 10, 11.....	2	2
Mechanics of Printing 13.....	1	..
Law of the Press 14.....	..	1
History of American Journalism 15, 16.....	2	2
Newspaper Policy 18.....	..	1
Newspaper Problems 19.....	2	..
Current Topics 21, 22.....	2	2
Trade Journalism 23.....	2	..
Country Journalism 24.....	..	2
Dramatic and Literary Criticism 25.....	2	..
Advertising 1, 2.....	2	2
Soliciting of Advertising 3, 4.....	1	1
Writing of Advertisements 5, 6.....	..	2
Salesmanship 7, 8.....	2	2

ELECTIVES IN POLITICAL SCIENCE

Comparative Government (Politics 9, 10).....	2	2
American Constitutional Law (Politics 13, 14).....	2	2
Comparative Constitutional Law (Politics 101, 102).....	2	2
American Diplomacy (Politics 18).....	..	2
International Law (Politics 21, 22).....	2	2
Principles of Jurisprudence (Politics 23).....	2	..
Administrative Law (Politics 24).....	..	2
Contemporary Political Problems (Politics 25).....	..	2
Municipal Problems (Politics 103, 104).....	2	2
Conference and Seminar (Politics 201).....	2	2

ELECTIVES IN SOCIOLOGY

Principles of Population 3, 4.....	2	2
Social Economy 5, 6.....	2	2

	First Semester	Second Semester
Social Progress 7, 8.....	2	2
Social Reform 9, 10.....	2	2
Advanced Social Economy 35, 36.....	3	3
Child Welfare 12.....	..	2
Advanced Sociology 101, 102.....	2	2
Research in Social Economy 105, 106.....	2	2
The Family and Marriage 201, 202.....	2	2
Seminar 211, 212.....	2	2

For other electives in languages, literature, history, science, mathematics, philosophy, etc., consult the General Catalog.

DESCRIPTION OF COURSES

ECONOMICS

1, 2. PRINCIPLES OF ECONOMICS

MR. KIDD

Two semesters, 3 credits each

A consideration of the fundamental concepts of economics; definition of terms, the theory of value, production, consumption, and distribution; factors of production; shares in distribution; the present day problems of economics and an application of economic theory to the settlement of these problems; the problems of wages, labor unions, trusts, and monopolies, tariff, interest, taxation, immigration, socialism, single tax and social reform legislation.

Textbook, lectures and collateral readings.

Prerequisite to all advanced courses in Economics, except 3, 4.

1E. ECONOMICS

Each semester, 2 credits

A brief resumé of economic theory. Discussion of practical economic problems; wages, interest, rent, currency, banking, taxation, trusts, tariff, socialism.

Open to Engineering, Mines and special students.

101, 102. ADVANCED ECONOMIC THEORY

MR. KIDD

Two semesters, 2 credits each

An intensive study of the history and literature of economics; the contributions to economic theory made by the ancients, the mercantilists, the physiocrats, the classical economists, the historical school; recent development of economic theory, with special attention to theories of value and distribution.

Open to advanced and graduate students.

3, 4. ECONOMIC RESOURCES

Two semesters, 2 credits each

A study of the natural resources of the United States—mineral, animal, agricultural. Special attention is given to agriculture, and to the problems of conservation. The resources and industrial conditions of different sections of the country, as the basis of our domestic trade. The resources, industries and trade of the leading commercial countries of Europe; and a special study of South America and the Orient.

Lectures, assigned reading, and reports.

5, 6. MONEY AND BANKING

PROFESSOR HOLDSWORTH

Two semesters, 2 credits each

Evolution and functions of money. The monetary system of the United States. Fiat and credit money; bimetallism. Factors affecting supply and demand. Theory of prices; price tables. Nature and uses of credit; credit instruments; relation of credit to prices. Domestic and foreign exchange.

The history and development of banking, with special reference to American experience. The national banking system: organization and leading features, operations, deposits, loans and discounts, collections, clearings, records, examinations, statements and reports, failures. The Federal reserve system. Savings banks, trust companies, international banking. Foreign banking systems.

Textbook, lectures, assigned reading, and reports.

103. BANKING PROBLEMS

PROFESSOR HOLDSWORTH

First semester, 2 credits

Intensive study of some of the leading banking problems in the United States and abroad. The money market, foreign exchange, foreign systems of banking and credit, "dollar" exchange, banking and foreign trade.

Lectures, reading and reports.

11, 12. TRANSPORTATION

Two semesters, 2 credits each

The origin and growth of American railways; present ownership and control. The organization of the railway company, and how it does its work. Railway rates and fares. The freight, passenger, express, and mail service. Regulation by the States and by the Federal Government. The Interstate Commerce Commission. Government ownership in the light of foreign experience. Electric railway transportation.

Ocean transportation. Ocean highways and seaboard terminals. The organization of ocean freight, passenger, express, and mail service. The merchant marine. The question of subsidies. The river, lake, and canal systems of the United States. The increasing importance of the inland waterways question.

Textbook, lectures, and assigned reading.

13. MODERN INDUSTRIES

First semester, 2 credits

A study of the leading manufacturing industries. Sources and supply of raw material. Factors affecting the location of industry. Sources and application of power. Manufacturing methods, and factors affecting cost of production. Large-scale versus small-scale production. Home and foreign markets for domestic manufactures.

Lectures, assigned reading, and reports.

16. INDUSTRIAL MANAGEMENT

Second semester, 2 credits

Advantages of various methods of business organization and management. "Scientific Management." The internal management of the large business or plant and the differentiation of the duties of various departments. Profit-sharing schemes. Labor problems. Markets and methods of distribution. A study of actual industrial conditions by visits to the mills and shops of Pittsburgh, special attention being given to the handling of raw materials, the arrangement of plant, and shipping facilities.

Lectures, assigned reading, reports, and field work.

19. LABOR PROBLEMS

First semester, 2 credits

The characteristic features of American industry and immigration with reference to the supply of labor. The organization, machinery, and methods of the trade union and the employers' association. Strikes and boycotts; the open and the closed shop; arbitration and conciliation. Industrial efficiency. Labor legislation. The Federal and State laws and decisions relating to labor, the factory and sweatshop, and employers' liability.

Textbook and assigned reading.

21. CORPORATION FINANCE

PROFESSOR HOLDSWORTH

First semester, 2 credits

Types of business corporations. The genesis of the trust. The financial organization and management of corporations. The promoter and the underwriting syndicate. The disposition of gross earnings and the provision of new capital. Charter, articles, and by-laws. Stockholders' powers, rights, and liabilities. Dissolution, receiverships and reorganizations.

Lectures and textbook, assigned reading, and reports.

24. INVESTMENTS

PROFESSOR HOLDSWORTH

Second semester, 2 credits

The general characteristics and merits of government and municipal bonds, and of railway, industrial, public service corporation, power and irrigation securities. The farm and city mortgage. How securities are

purchased and marketed. The organization of the investment business. A study of fluctuations in bond and stock prices to determine the influences acting upon security values. Analysis of typical securities and railroad reports. Examination of savings banks and trust company holdings.

Lectures, assigned reading, and reports.

Prerequisite: 21.

27. BROKERAGE

First semester, 2 credits

The organization and machinery of stock and produce exchanges. The terminology of the stock market. How stocks and bonds are listed and dealt in. Speculation. Dealing in "futures." Bucket shops. The "curb." Investment brokerage. The relation of the stock exchange to the country and to the banks. The broker and his work. The legal relationship of broker and customer.

Lectures and reports. Prerequisite: 21, 24

28. CREDITS AND COLLECTIONS

Second semester, 2 credits

The theory and history of credit; classes of credit; mercantile credit; the credit office; sources of credit information; credit exchange; adjustment bureaus; collections; credit men's associations; credit insurance; bankruptcy laws.

Textbook, lectures, assigned reading, and reports.

31, 32. PUBLIC FINANCE

PROFESSOR HOLDSWORTH

Two semesters, 2 credits each

Federal taxation and expenditures. Budget system of other countries. The justice and incidence of taxation. State and municipal taxation and expenditures. General property tax, income and inheritance taxes, the single tax, methods of assessment. City budgets and municipal accounting. A study of the fiscal and monetary history of the United States.

Lectures and reports.

35. COMMERCIAL HISTORY AND POLICY

First semester, 2 credits

Colonial commerce and industry. The economic aspects of the Revolution. The public land system, and the new problems of conservation. Internal improvements and transportation. Slavery and the negro problem. Immigration. The merchant marine. Our insular possessions. The growth and supremacy of manufactures. The industrial genesis of the South. History of the tariff policy of the United States.

Textbook, lectures, assigned reading, and reports.

36. FOREIGN TRADE RELATIONS

Second semester, 2 credits

Theory of international trade; commercial treaties; tariffs and customs regulations of the leading nations; the consular service; the trend of the

import and export trade, new foreign markets; exporting methods; packing and shipping, credits and collections. Special attention to the resources, industries and trade of Latin America, and the possibilities of extending the trade of the United States with those countries.

37. LIFE INSURANCE

PROFESSOR FLOCKEN

First semester, 2 credits

General principles of insurance; external and internal organization of companies; types of policies; calculation of premiums and reserves; life tables; buying and selling of insurance; insurance as an agency of social welfare; development of life insurance; investment of life insurance funds; accident, health, employers' liability and compulsory state insurance.

Textbook, lectures, and assigned reading.

38. PROPERTY INSURANCE

PROFESSOR FLOCKEN

Second semester, 2 credits

Functions of fire insurance; the policy contract; principles of rate making; hazards; reinsurance; the reserve in fire insurance; adjustment of losses; fire protection and prevention; the annual report; state supervision and regulation; the development and organization of fire insurance company. A study of the various branches of property insurance other than fire insurance. The fixing of rates; the policies and their interpretations; the legal principles involved, organization, management and insurance practice.

Textbook, lectures, and assigned reading.

40. STATISTICS

PROFESSOR FLOCKEN

Second semester, 2 credits

This course is intended to present the methods of determining, analyzing, and interpreting social and economic facts by the use of statistics. It includes a consideration of the sources of statistics; collection of data; analysis and interpretation of data by the use of averages, diagrams, tables and frequency curves; accuracy, variation and correlation; development of statistics; and a consideration of the value of various statistical undertakings. The method is illustrated by its application to reliable data in the field of business and in the social sciences.

Textbook, lectures, discussion of cases.

43, 44. BUSINESS LAW

MR. WRIGHT

Two semesters, 2 credits each

The elementary principles of law relating to business transactions. The making, operation, interpretation and discharge of contracts and law of negotiable instruments. Legal rules relating to agency, partnerships, corporations, bailments, common carriers, sales, real property. Emphasis

is laid upon the legal problems which arise in every day business and the making of legal business documents.

Textbook, lectures, and assigned reading.

45. ENGINEERING CONTRACTS AND SPECIFICATIONS

One semester, 2 credits

Legal rules governing the making, operation, interpretation and discharge of engineering contracts. The law of bids and bidders. Legal requirements of specifications in contracts. Practical work in the drafting of contracts.

Textbook, lectures, discussion of cases.

ACCOUNTING

PROFESSOR FLOCKEN AND MR. ZINSMASTER

1, 2. ELEMENTARY ACCOUNTING

Two semesters, 3 credits each

A course covering the fundamental elements of accounting, including the principles and practice involved in the derivation of the income statement and balance sheet; the construction, use, and interpretation of these statements; a study of the various books used in accounting; opening and closing entries, and the special accountancy requirements of the sole proprietorship, partnership, and corporate forms of business organization. The elements of cost accounting are considered during the latter part of the course.

Required of Freshmen.

3, 4. PRINCIPLES OF ACCOUNTING

Two semesters, 2 credits each

The theory covering various points in accounting; practice work in the solution of problems involving opening and closing entries for various kinds of business; problems arising out of single entry; problems having to do with the use and division of the revenue statement; partnership adjustments, corporations, consolidations, realization and liquidation accounts, and the statement of affairs and deficiency accounts. Considerable use is made of C.P.A. problems in this course.

Prerequisite: Accounting 1, 2.

5, 6. AUDITING

Two semesters, 2 credits each

Preparation of accounts for an audit; examination of books; nature of an audit; method of procedure; kinds of audits; duties and responsibilities of auditors; the auditor's certificate and report; special considerations in special classes of audits; fraud in accounts. Considerable work is provided to afford practice in the auditor's work of making up, inter-

preting and certifying to business statements; problems with unusual features are considered; also problems selected to give further practice in the work begun in the course in Principles of Accounting.

Prerequisite: Accounting 3, 4.

7. ACCOUNTING SYSTEMS

First semester, 2 credits

The accounting requirements of banks, building and loan associations, insurance companies and brokerage concerns; their accounts, records, and financial and operating statements. Accounting features peculiar to each institution are considered, such as the internal checks of a bank; serial stock, the distribution of profits of the building and loan association; the insurance reserve; broker's records for the buying and selling of securities, and the cash and long and short balances of accounts.

Prerequisite: Accounting 3, 4.

8. ACCOUNTING SYSTEMS

Second semester, 2 credits

Accounting subject to government and court regulation and control, including the accounting requirements of municipalities, railways and public utilities; their accounts, records, and financial and operating statements. The special requirements of the municipality in regard to income and expenditure, funds, budget making, accounting control, expense analysis and balance sheets. The systems of accounting prescribed by the Interstate Commerce Commission and state public utility commissions. The accounting requirements of the Orphans' Court for administrators, executors and trustees.

Prerequisite: Accounting 3, 4.

9. COST ACCOUNTING

Two semesters, 2 credits each

The design and installation of cost systems; benefits to be derived from accurate costs; purchase, use and storage of materials; the payroll and the getting of the labor costs to the job; types of cost systems to fit industries of various kinds; plans of wage payment; efficiency work and scientific management; depreciation; the factory burden, its determination and apportionment, including a study of scientific machine rates; inspection of cost systems in use and the literature of cost accounting.

Prerequisite: Accounting 3, 4.

12. MINE ACCOUNTING

Second semester, 2 credits

The principles of general accounting and their application to the recording, classifying and summarizing of mining transactions; the application of cost accounting principles to mining labor, supplies, and

overhead; revenue and financial statements; accounting for subsidiary enterprises connected with mining companies.

Open to students in the School of Mines.

*13, 14. ACCOUNTANCY PROBLEMS

Two semesters, 2 credits each

Advanced problem work and review intended for those planning to take the State examinations for the degree of Certified Public Accountant, that is, those intending to practice public accounting as a profession. C.P.A. problems of Pennsylvania and of other States will be solved and discussed; attention will be given to the best methods of working and setting up problems; practice work to develop speed and accuracy in the solution of problems; comparison of problems set at the recent examinations with those given at the earlier examinations; C.P.A. questions other than problem questions.

Prerequisite: All of the accounting courses except 12, 101 and 102.

101, 102. ACCOUNTING SEMINAR AND PRACTICE

Two semesters

The purpose of the seminar is to provide an opportunity for individual research, and for conferences upon the research work and the practice work being done. The purpose of the practice work is to give those students looking forward to public accounting as a career, and other students to a limited number, an opportunity to do actual accounting work and auditing for some of the smaller business concerns of Pittsburgh. A student registering in this course must serve an apprenticeship as a junior accountant, until he is qualified to act as a senior accountant and to undertake on his own account the examination and auditing of books.

Credit will be given according to the work done. Three hours' work per week for one semester will give a one hour credit and additional credits will be granted on the same basis. It is not possible to state the credit for this course in advance as it will depend upon the supply of accounting work to be done as well as upon the time which the student has to give to this work.

Open only to those students who have had Accounting 3, 4, and who are registered for advanced accounting work.

17, 18. MATHEMATICS OF FINANCE AND INSURANCE

DR. JONES

Two semesters, 3 credits each

A course in mathematics applied to finance, investments, insurance, and other business activities. Among the subjects treated are: Interest, annuities, amortization, valuation of bonds, sinking funds, depreciation, building and loan associations, life insurance.

Prerequisite: College entrance mathematics.

*Not given in 1915-16.

JOURNALISM

MR. WILLIAMS AND MR. ARNOLD

1, 2. NEWS GATHERING AND WRITING

Two semesters, 2 credits each

Newspaper reporting and correspondence. How news style differs from the literary and magazine style. A study of the details of the work of the reporter with special emphasis on practical reporting by members of the class. Newsgathering; local and telegraphic news, the press associations, national and local. The work includes visits to the Pittsburgh newspaper offices, and practical talks by editors at periodic evening meetings.

3, 4. JOURNALISM LABORATORY

Two semesters, 2 credits each

This course presents in actual practice on the Pitt Weekly and other publications the methods of gathering and writing the news, the editing of newspaper copy, and the writing of headlines.

Prerequisite: Journalism 1, 2.

5, 6. PRACTICAL NEWSPAPER EDITING AND MAKING

Two semesters, 2 credits each

Editing of copy, writing of headlines, making up, correcting proof, rewriting, handling of feature work, making assignments. The class will work on the copy submitted by the class in Journalism 1, 2, and on the reports of the local and national press associations.

Prerequisite: Journalism 1, 2, or the equivalent practice.

7, 8. SPECIAL FEATURE AND MAGAZINE WRITING

Two semesters, 2 credits each

Study and practice in preparing special articles for the newspapers and magazines. The style of the best magazines, syndicates, and newspapers is analyzed and used as models. Students with previous training in writing may elect this course.

9. EDITORIAL WRITING

One semester, 1 credit

The editorial style and the writing of the editorial. The field of the editorial in modern journalism. The editorial pages of the leading American newspapers are analyzed and studied. Elective for students who have had considerable practice in writing.

11, 12. SHORT STORY WRITING

PROFESSOR GIBBS

Two semesters, 2 credits each

Study and criticism of short stories. Practice in preparing special articles for magazine and newspaper publication.

13. MECHANICS OF PRINTING

One semester, 1 credit

This course is designed to familiarize the student with the mechanical end of the newspaper and magazine, and includes a study of type, typesetting machines, printing presses, pictures and drawings and their preparation for printing, the half-tone and electrotype processes, stereotyping, and the organization of a newspaper plant. The class work is supplemented by visits to engraving companies and local newspaper plants.

14. LAW OF THE PRESS

One semester, 1 credit

The law of newspaper libel, literary property and copyright, both foreign and domestic. Important libel suits in the United States. Lectures and a study of cases.

15, 16. HISTORY OF AMERICAN JOURNALISM

Two semesters, 2 credits each

A study of the American newspaper from the publication of the Boston News Letter in 1704 to the present day.

18. NEWSPAPER POLICY

One semester, 1 credit

The ethics of the profession; the course the newspaper should pursue on national and international questions, its attitude toward the government; its policy on State and local affairs, politics, industrial, social and economic questions. Sensationalism versus conservatism.

19. NEWSPAPER PROBLEMS

One semester, 2 credits

Profits and losses. The print paper problem. The steady increase in cost of production. Must the selling price be increased? Difficulties in increasing the advertising rates. The circulation liar and the harm to the business. News fakers. How to increase the efficiency of reporters.

21, 22. CURRENT TOPICS

Two semesters, 2 credits each

A survey of current political, social and economic issues reflected in magazines and newspapers. The course is designed to keep present-day problems before the student and to stimulate interest in public issues.

23. TRADE JOURNALISM

One semester, 2 credits

A course dealing with the editing and publishing of trade papers. Special lectures by trade journal editors and business managers.

24. COUNTRY JOURNALISM

One semester, 2 credits

Differences between country and metropolitan journalism. Types of news writing and news selection. Writing for the country press.

25. DRAMATIC AND LITERARY CRITICISM

One semester, 2 credits

Book reviewing and criticism of drama.

ADVERTISING AND SALESMANSHIP

1, 2. PRINCIPLES OF ADVERTISING

Two semesters, 2 credits each

The theory and principles of advertising and selling. Psychology of advertising. Preparation of copy; advertising campaign mediums, street car, mural, house organ advertising. The class room instruction is supplemented with talks by advertising men.

3, 4. SOLICITING OF ADVERTISING

Two semesters, 1 credit each

A laboratory course in the selling of advertising.

5, 6. WRITING OF ADVERTISING

One semester, 2 credits

Preparation of advertising copy and campaigns.

7, 8. SALESMANSHIP

Two semesters, 2 credits each

Instruction and practice in applying the principles of successful selling. Psychology of selling; qualifications of good salesman; analysis of a sale: approach, demonstration, close.

POLITICAL SCIENCE

PROFESSOR THORPE AND MR. WRIGHT

1, 2. GOVERNMENT, FEDERAL AND STATE

Two semesters, 2 credits each

The development of government in America. Charters and grants. Colonial organization. Formation of the United States of America. The civil organization; State, Federal. Administration.

Textbook, lectures, assigned reading, and reports.

Prerequisite to all succeeding courses in Political Science.

Required of Freshmen.

5, 6. MUNICIPAL GOVERNMENT

Two semesters, 2 credits each

The growth of cities; problems of the modern city; the city and the state; municipal home rule; charter making; the electorate; mayor

and council; commission government; the city manager plan; direct legislation. Municipal officers and administration; civil service and merit systems; the expert in city government; municipal research.

Municipal systems of Europe; administrative systems in Europe and the United States; methods and results; public health and safety; charities; education; finance; streets and highways; public works; public utilities regulation; municipal ownership.

Textbook, lectures, reading and reports.

9, 10. COMPARATIVE GOVERNMENT

Two semesters, 2 credits each

A comparative study of the leading governments of the world.

Textbook, lectures, and assigned reading.

Prerequisite: Politics 1, 2.

13, 14. AMERICAN CONSTITUTIONAL LAW

Two semesters, 2 credits each

The principles of constitutional law in America; the formation of constitutional law; the interpretation of constitutional law. The Constitution of the United States.

Lectures, reading, and reports.

Prerequisite: Politics 1, 2, and History 7E, 8E.

101, 102. COMPARATIVE CONSTITUTIONAL LAW

Two semesters, 2 credits each

The origin, adoption, development and interpretation of the constitutions of the States.

Lectures, reading, and reports.

Prerequisite: Politics 13, 14.

18. AMERICAN DIPLOMACY

Second semester, 2 credits

Historical study of the relations of the United States with foreign nations. Organization of the State Department and diplomatic service. The treaty-making power. Monroe, Calvo, and Drago doctrines. The "open door" in the Far East. Relation of the United States to the debtor American nations. Rise of the United States to the position of a world power. Lectures, required readings, and reports.

21, 22. INTERNATIONAL LAW

Two semesters, 2 credits each

Historical development. Sources and authority of international law. The part played by the United States in its development. The law of peace, of neutrality, and of war. Blockade and contraband. The Hague Tribunal. New questions arising from the European war. The outlook for extension of international law.

Textbook, lectures, assigned readings, and case reports.

23. PRINCIPLES OF JURISPRUDENCE

First semester, 2 credits

The nature of law; historical development of Roman and English legal systems; English common law in the United States; sources of law and relation between statutes and judicial decisions; discussion of the various branches of law and their relation to one another; recent thought on the principles of jurisprudence.

Reading, lectures and discussion.

Prerequisite: Politics 1, 2.

24. ADMINISTRATIVE LAW IN THE UNITED STATES

Second semester, 2 credits

Separation of governmental powers and delegation of legislative power; federal and state administrative organizations; powers of administrative officers; methods of enforcing governmental commands; remedies of the individual against unlawful action of public officers (civil suit, criminal action, mandamus, injunction).

Textbook, reading and lectures.

Prerequisite: Politics 13, 14.

25. CONTEMPORARY POLITICAL PROBLEMS

Second semester, 2 credits

The larger questions of present-day domestic politics; the initiative, referendum, and recall; proportional representation; universal suffrage; electoral reform; local self government; reform of judicial procedure; executive participation in legislation; judicial control over legislation; economy and efficiency in state and national governments; governmental regulation of industry.

Reading, reports, lectures and discussion.

Prerequisite: Politics 1, 2.

103, 104. MUNICIPAL PROBLEMS

Two semesters, 2 credits each

Intensive study of municipal activities, functions and administration in the United States and Europe. Relations between city and state; local organization; political methods and reform movements. Administrative, economic and social problems: food supplies; production and distribution; coöperative buying; markets; protection of the water, milk and food supply; housing reform; transit facilities; fire prevention; health and sanitation; police; fiscal problems; taxation, assessment, the budget, municipal accounting; public works; ownership and operation of public utilities; education; recreation; bureaus of public efficiency and municipal research; city planning.

Each student will be expected to make individual investigation of original problems under the direction of the instructor. Open to students qualified to pursue graduate and research work.

201, 202. CONFERENCE AND SEMINAR

Critical study of documents, materials, and sources relating to the development of government in America. Open to persons qualified to pursue investigation and research work.

SOCIOLOGY

PROFESSOR TODD AND ASSISTANT PROFESSOR TYSON

***1, 2. PRINCIPLES OF SOCIOLOGY**

PROFESSOR TODD AND DR. TYSON

Two semesters, 2 credits each

An introduction to the science of society. The content and methods of sociology; the nature of society. Discussion of the physical, biological, and psychological aspects of social evolution. A review of the development of the institutions for social control, of industry, the family, and the state. The theory of social progress and an application of principles to modern social problems.

Lectures and required reading.

***3, 4. PRINCIPLES AND POLICIES OF POPULATION**

ASSISTANT PROFESSOR TYSON

Two semesters, 2 credits each

Principles of Population—Movements of population; Malthus' Law; sociological value of vital statistics; birth, death, and marriage rates. The physical, biological, and psychological forces determining population and race types.

Race Problems and Immigration—Race questions of the American population. The Indian and his problem; the negro in slavery and his recent progress. A study of the new immigrant groups and their influence upon the future population type in America. Social problems presented by retarded population groups. Social betterment movements—housing, health, "welfare work," and methods of raising the standard of living.

Lectures, readings, reports, and field work among population groups of the Pittsburgh district.

5, 6. SOCIAL ECONOMY

PROFESSOR TODD

Two semesters, 2 credits each

The Problem of Poverty—The extent and causes of destitution; typical attempts to treat and cure poverty; modern preventive and constructive philanthropy. Methods of care for the aged poor, the unemployed, the vagrant, children, widows, the sick, insane, and feeble-minded. The administration of charity, public relief, the C.O.S., the Elberfield plan, etc. The education of trained social workers and volunteers.

*Courses 1, 2, and 3, 4, are given as units, and credit cannot be given for less than the full year's work.

The Problem of the Delinquent—Criminology. The extent and causes of crime; nature of the criminal; question of the "criminal type," criminal statistics. Penology. Suggested reforms of criminal procedure; problems of the prison; indeterminate sentence; probation; the Juvenile Court.

Lectures, readings, and visits to charitable institutions and agencies and those dealing with the delinquent.

7, 8. SOCIAL PROGRESS

PROFESSOR TODD AND DR. TYSON Two semesters, 2 credits each

Interpretations of social progress. The share of the several social institutions and agencies in social evolution and progress; means by which social institutions may be adapted to further a rational plan of social progress.

Applications of the theory of social progress. The social settlement and social center. Beginnings and growth of the settlement movement; theory and aims; organization and conduct of settlement work; the relation of the settlement to neighborhood and civic activities. The recreation center idea. Wider use of schools, libraries, etc. New meanings and methods in recreation work.

Students electing this course are advised to take part in settlement and recreation work in the city.

Lectures, readings, reports, and field work.

9, 10. SOCIAL REFORM

ASSISTANT PROFESSOR TYSON Two semesters, 2 credits each

Social reform in the nineteenth century. The Industrial Revolution and its social effects.

The literary and ethical reformers; the social influence of poetry—Byron and Shelly, etc.; the social essayists—Carlyle and Ruskin; the novel and social reform—Dickens, Kingsley, etc.; the social emphasis in the drama—Shaw, Galesworthy, etc.

The socialist movement; the Utopian socialists. A review and critique of the history and theory of socialism.

Social Legislation: The factory reformers, and English legislative reforms. Problems of social insurance. European experience and its bearing on American conditions. Workingmen's compensation; insurance for sickness, accident and unemployment. Widows' and old age pension schemes and other legislation proposed to prevent poverty.

Lectures, readings, and reports.

12. PROBLEMS OF CHILD WELFARE

PROFESSOR TODD Second semester, 2 credits

Conservation of infant life; methods of caring for dependent children; principles of institution building and administration; placing-out

children; care of defective, retarded and delinquent children; problem of training home makers; correlation of child welfare agencies.

Lectures, reading and field work in the Pittsburgh District.

35, 36. ADVANCED SOCIAL ECONOMY

PROFESSOR TODD

Two semesters, 2 credits each

The outline of this course follows rather closely that of Courses 5, 6, but it is designed to give students who have the time and who desire to specialize in Social Economy an opportunity for more intensive reading and research.

Lectures and readings.

101, 102. ADVANCED SOCIOLOGY

PROFESSOR TODD

Two semesters, 2 credits each

An intensive study of constructive sociological theory.

Prerequisite: Sociology 1, 2.

105, 106. RESEARCH IN SOCIAL ECONOMY

PROFESSOR TODD AND ASSISTANT PROFESSOR TYSON

Two semesters, 2 credits each

Method and practice of original research work in the field of social economy. Specific and concrete social problems in the City of Pittsburgh are studied intensively.

This course is open only to undergraduates doing superior work in Social Economy and graduate students in Sociology. It offers an opportunity to those students who purpose to fit themselves for professional social work to do effective field work under personal direction and in coöperation with the social work organizations of a great industrial center.

201, 202. THE FAMILY AND MARRIAGE

PROFESSOR TODD

Two semesters, 2 credits each

Origin and development of the family and modern problems of the family group.

Lectures and reading.

211, 212. SEMINAR IN SOCIOLOGY

PROFESSOR TODD AND DR. TYSON

Two semesters, 2 credits each

History and development of sociological thought; review of current sociological literature. Papers on specific sociological problems.

ENGLISH LANGUAGE AND LITERATURE

PROFESSOR GIBBS, Head of the Department

1, 2. COMPOSITION

Two semesters, 3 credits each

A study of the principles of composition, with exercises in the analysis of prose selections, practice in writing, and criticism.

Required of freshmen.

5, 6. ARGUMENTATION AND DEBATING

Two semesters, 2 credits each

A study of the laws underlying the settlement of differences of opinion, with practical exercises in brief drawing, and the composition and delivery of forensics.

Sophomores may elect this course, or English 7, 8, or 9, 10.

7, 8. ENGLISH LITERATURE

Two semesters, 2 credits each

A study of selected masterpieces of English literature, representing the successive periods from the earliest times to the age of Victoria.

9, 10. AMERICAN LITERATURE

Two semesters, 2 credits each

The development of literature in America, with readings from representative authors, especially Irving, Emerson, Hawthorne, Lowell, Holmes, and Poe.

PUBLIC SPEAKING

PROFESSOR LANE

1. PUBLIC SPEAKING

First semester, 2 credits

A study of the fundamental principles of vocal expression and action and the practical application of the principles in the interpretation of literature.

2. PUBLIC SPEAKING

Second semester, 2 credits

A study of specimens of public address with emphasis upon selection of topic, plan of treatment, and conditions that called forth the speech. This work is supplemented by the preparation of original speeches planned beforehand, but delivered extemporaneously.

3. PUBLIC SPEAKING

First semester, 2 credits

A continuation of 1, 2. A course in the composition and delivery of original speeches, the themes of which are taken from the field of economics.

4. PUBLIC SPEAKING

Second semester, 2 credits

A study of specimens of exposition and argument with attention to plan of construction, and the delivery of original speeches of expository and argumentative nature.

5. PUBLIC SPEAKING

First semester, 2 credits

A study of the speech for special occasions; an examination of the speech in behalf of a cause, of a president, of commemoration and dedication, of presentation and acceptance, of official and political representative. Original speeches illustrative of the different forms are planned and then delivered extemporaneously.

6. PUBLIC SPEAKING

Second semester, 2 credits

An advanced course to meet practical needs. Lectures on speech making, reading from English and American oratory, and the preparation and delivery of a number of original speeches.

Prerequisite: 1, 2, and two other courses, or English 7 and 8. In case of more than ten applicants admission will depend on the student's record.

7, 8. DEBATING

Two semesters, 2 credits each

The discussion of a number of public questions of general interest. Stress is laid upon the acquisition of a good style of extemporaneous address. Especially for students who desire to take part in intercollegiate debate.

Prerequisite: Public Speaking 1, 2.

GERMAN

PROFESSOR RASCHEN, Head of the Department

1, 2. ELEMENTS OF GERMAN

Two semesters, 3 credits each

A continuous course in the essentials of German. The formal study of grammar is subordinated to a direct method of acquiring command of the spoken and written idiom. German is the chief medium of instruc-

tion. It includes the mastery of phonetic principles, reading of easy narrative prose, reproduction of text matter in German, the systematic acquisition of a vocabulary, composition, and the inductive study of grammatical forms.

3, 4. INTERMEDIATE GERMAN

Two semesters, 3 credits each

This course in second year German is also a unit. Grammatical principles are reviewed, modern narrative and descriptive prose will be read and made the basis of conversation. Composition.

Teachers in preparatory schools fitting students for this or the succeeding courses are urged to give special attention to simple dictation, the building up of a systematized vocabulary of important root words and to the training in understanding of simple spoken German.

C3, C4. COMMERCIAL GERMAN

Two semesters, 3 credits each

Rapid review of grammar. Reading of commercial German with drill in written and spoken idioms. Collateral reading.

Prerequisite: German 1, 2.

5, 6. MODERN GERMAN AUTHORS

Two semesters, 3 credits each

Rapid reading of texts of standard modern authors. Retroversion of text, discussion in German, collateral reading. Reports.

Prerequisite: 3, 4.

11, 12. GERMAN LIFE AND MANNERS

Two semesters, 2 credits each

An introduction to the life, manners and thought of the German people, and to the geography and organization of Germany. Lectures, assigned reading, reports, discussion. Conducted in German.

Prerequisite: 5, 6, or C3, C4.

ROMANCE LANGUAGES

FRENCH

ASSISTANT PROFESSOR FARNSWORTH, Head of the Department

1, 2. ELEMENTARY FRENCH

Two semesters, 3 credits each

The study of grammar and the reading of easy prose, with constant practice in oral work. Dictation and sight translations. Fraser and Squair's *Shorter French Course*, David's *Chez Hous*, Bruno's *Tour de la France*.

3, 4. INTERMEDIATE FRENCH

Two semesters, 3 credits each

The study of syntax, in connection with the reading of modern prose selected for its presentation of some phase of French life or history. At the end of the year the student should be able to understand ordinary French, both written and spoken, and to express himself in simple language.

C3, C4. COMMERCIAL FRENCH

Two semesters, 3 credits each

Parallel with French 3, 4, but intended for students in the School of Economics. The study of business forms and commercial correspondence. The reading of articles dealing with commercial and kindred subjects. Drill in spoken French.

SPANISH

DR. BOYCE

1, 2. ELEMENTARY SPANISH

Two semesters, 3 credits each

A thorough study of the elements of the language, with constant practice in oral work. The object of the course is to train the student in correct pronunciation, to enable him to express himself in simple language, and to read ordinary prose with considerable ease.

C3, C4. COMMERCIAL SPANISH

Two semesters, 3 credits each

The reading of articles dealing with business and commerce. Drill in correspondence and business forms, with oral work in the vocabulary of daily life.

ITALIAN

1, 2. ELEMENTARY ITALIAN

Two semesters, 3 credits each

Grammar, translation, dictation, composition. Stress is laid first on an accurate pronunciation, then on fluency in translation, finally on the ability to understand and to use the spoken language.

3, 4. COMPOSITION AND CONVERSATION

Two semesters, 1 credit each

Practice in writing and speaking Italian. Study of advanced grammar. Prerequisite: Italian 1 and 2.

HISTORY

DR. WEBSTER, AND MESSRS. HOWE AND LEMKE

5, 6. GENERAL EUROPEAN HISTORY

Two semesters, 3 credits each

This course covers the period from 312 A. D. to the present time. Especial attention is given to the development of civilization, to the growth in institutional liberty and to changes produced by economic causes. Sophomores must elect this history course or 7E, 8E.

7E, 8E. AMERICAN CONSTITUTIONAL HISTORY

DR. THORPE

Two semesters, 3 credits each

Formation of the Union; formation, adoption, ratification of the Constitution; the principles of government in America; the early state constitutions; the principal political issues involving constitutional interpretation; the great compromises; slavery as a constitutional question; the state constitutions (1800-1860); judicial interpretation of the Constitution; the amendments; reconstruction; the later state constitutions; later judicial interpretation of the principles of the Constitution.

Sophomores are required to take this course, or History 5, 6.

Prerequisite to courses in Political Science 13, 14; 21, 22.

27, 28. CONTEMPORARY HISTORY

MR. HOWE

Two semesters, 1 credit each

This course is to keep the students in touch with the events of the day, both at home and abroad. Current periodicals and magazines will be used in the place of textbooks. Discussion of current affairs and individual opinions are strongly encouraged.

113. THE FRENCH REVOLUTION AND THE NAPOLEONIC PÉRIOD

MR. HOWE

First semester, 2 credits

The reigns of Louis XIV., XV. and XVI. are briefly considered, then the course of the French Revolution, and finally the career of Napoleon, with special reference to their influence upon the Europe and America of to-day.

114. EUROPE IN THE NINETEENTH CENTURY

MR. HOWE

Second semester, 2 credits

This course includes the political history of Europe from 1815 to the present time. Special attention is given to the Unification of Germany and Italy and the events leading up to the great war.

PSYCHOLOGY

PROFESSOR WHITE, Head of the Department

1. 2. GENERAL PSYCHOLOGY

Two semesters, 3 credits each

An introductory course destined to give a general survey of the whole field of Psychology so as to serve as a part of a liberal education, and as a preparation for more advanced work in Psychology and other subjects which deal primarily with the phenomena of mental life. The work is supplemented throughout by demonstrations and experiments before the class. In the second semester special attention is given to the psychology of business.

Required in the Junior or Senior Year.

PHILOSOPHY

PROFESSOR MECKLIN

2. LOGIC: INTRODUCTION TO SCIENTIFIC METHOD

Second semester, 3 credits

This course is designed to give the fundamental intellectual methods of science and to indicate their logical and philosophical implications. The basic concepts of the science are approached from the historical point of view.

Lectures with parallel reading and reports.

Required in the Junior or Senior year.

5. SOCIAL ETHICS

First semester, 3 credits

A discussion of the implications of ethical theory for the practical problems as they arise in the economic, political, and social relations.

Lectures, reading, and reports.

Required in the Junior or Senior year.

For description of elective courses in other schools, see the General Catalog.

PHYSICAL EDUCATION

AIMS

1. The development of organic power, the basis of vitality, the prerequisite to physical and mental efficiency.

2. To secure and maintain good posture, a harmonious development, and a reasonable degree of bodily skill and grace.

3. To provide an incentive and an opportunity for every student to receive physical recreation daily, as a balance to the sedentary demands of university life.

4. To conserve the social and moral values of games and sports and to secure to every student the fullest opportunity for their practice.

5. To develop the habit of exercise.

EQUIPMENT

The Gymnasium is a four-story building, 130 feet long and 50 feet wide. On the first floor are the locker rooms and swimming pool, 30 x 60 feet. On the second floor are the offices, examination rooms and running track. On the third floor is the main gymnasium equipped with modern and approved apparatus, such as ladders, horizontal and parallel bars, horses, bucks, giant strides, chest weights, rowing machines, wrestling machines, poles, traveling rings, ropes, booms, and stall bars; also a complete outfit of light apparatus, including dumb bells, clubs, wands, foils, bar bells, etc. On the fourth floor are the boxing, wrestling, fencing and trophy rooms.

An athletic field is provided for the use of men students. The field is equipped with a running track, baseball and football field and other necessary features.

REQUIREMENTS

Physical Training is prescribed for all Freshmen and Sophomore students throughout the year, and three hours per week are required.

The Gymnasium is also open for Junior and Senior students and students from the Professional Schools. The locker fee is one dollar per year.

Men students are required to be able to swim a distance of forty yards and women twenty yards by the end of the Sophomore year.

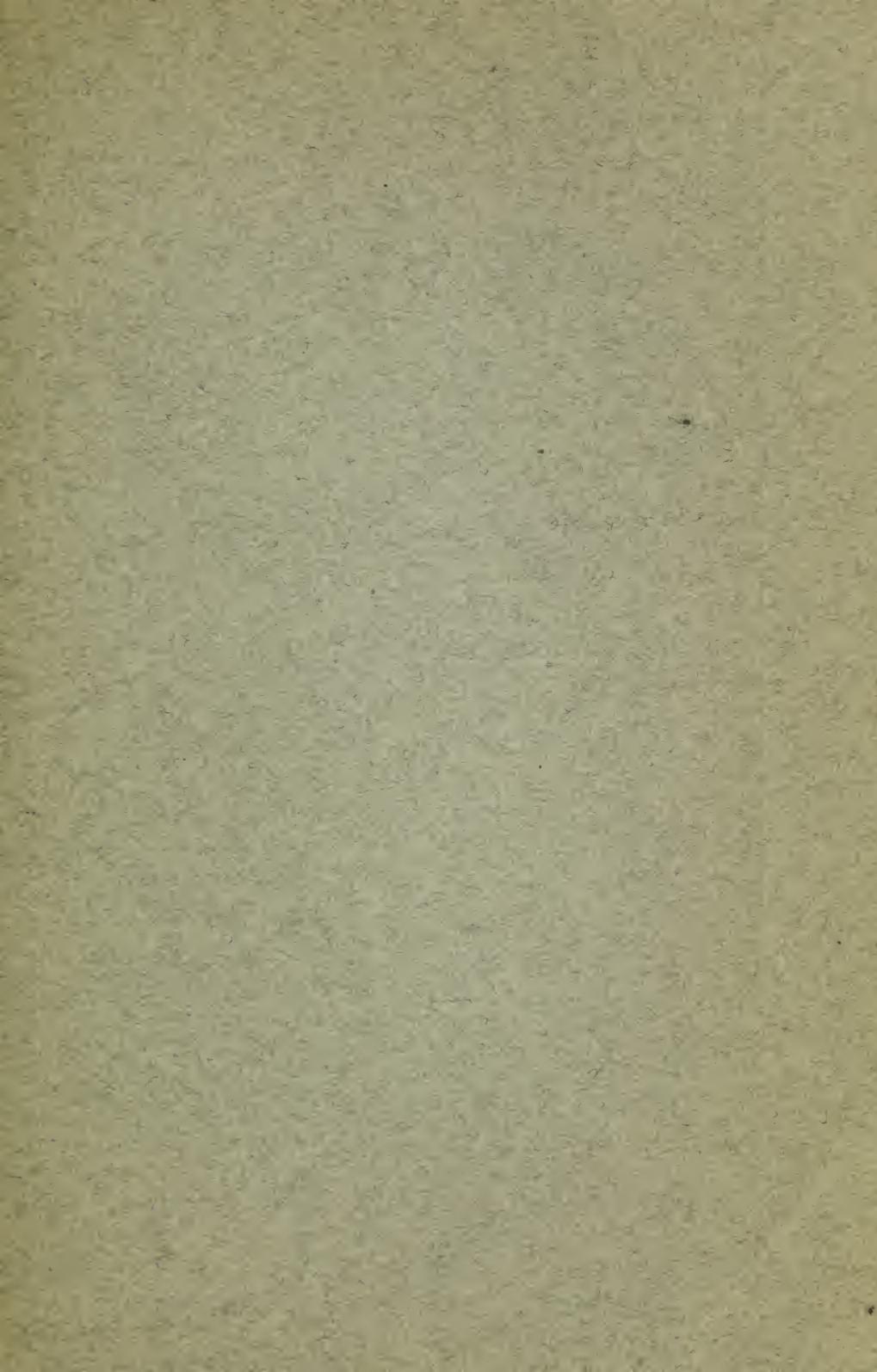
Six credits must be secured in Physical Education by the satisfactory completion of the regular courses. These credits are determined on the basis of attendance and effort and the attainment of certain standards of organic development, motor proficiency and knowledge of the principles and practice of efficient living.

The regular gymnasium suit must be worn and can be secured at the University book store.

The organic condition, stage of physical development and degree of motor efficiency attained by entering freshmen and sophomores are determined at the opening of the year by a thorough examination. This examination includes the measurements of the body, certain strength tests and a careful search for abnormal deviations of form, structure and function.

An endeavor is made to determine the student's exact organic condition with a view to outlining the proper exercise and work.

No student is permitted to participate in competitive games unless he is physically fit for the same as determined by the examinations described.



UNIVERSITY OF PITTSBURGH BULLETIN

Entered March 13, 1914, at the Post Office at Pittsburgh, Pa., as
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The University of Pittsburgh Bulletin is published by the University of Pittsburgh and is issued thirty times a year. It is divided into series as follows:

ANNOUNCEMENT:—Including the General Catalog and the Announcements of the College, Schools of Engineering, Mines, Economics, Education, Law, Medicine, Dentistry, Pharmacy, Summer Term, Extension.

OFFICIAL:— Including the Chancellor's Report, News Bulletins, Etc.

GENERAL:—Including papers of general interest.

For copies of any of the above, address the Secretary, University of Pittsburgh, or the school concerned.

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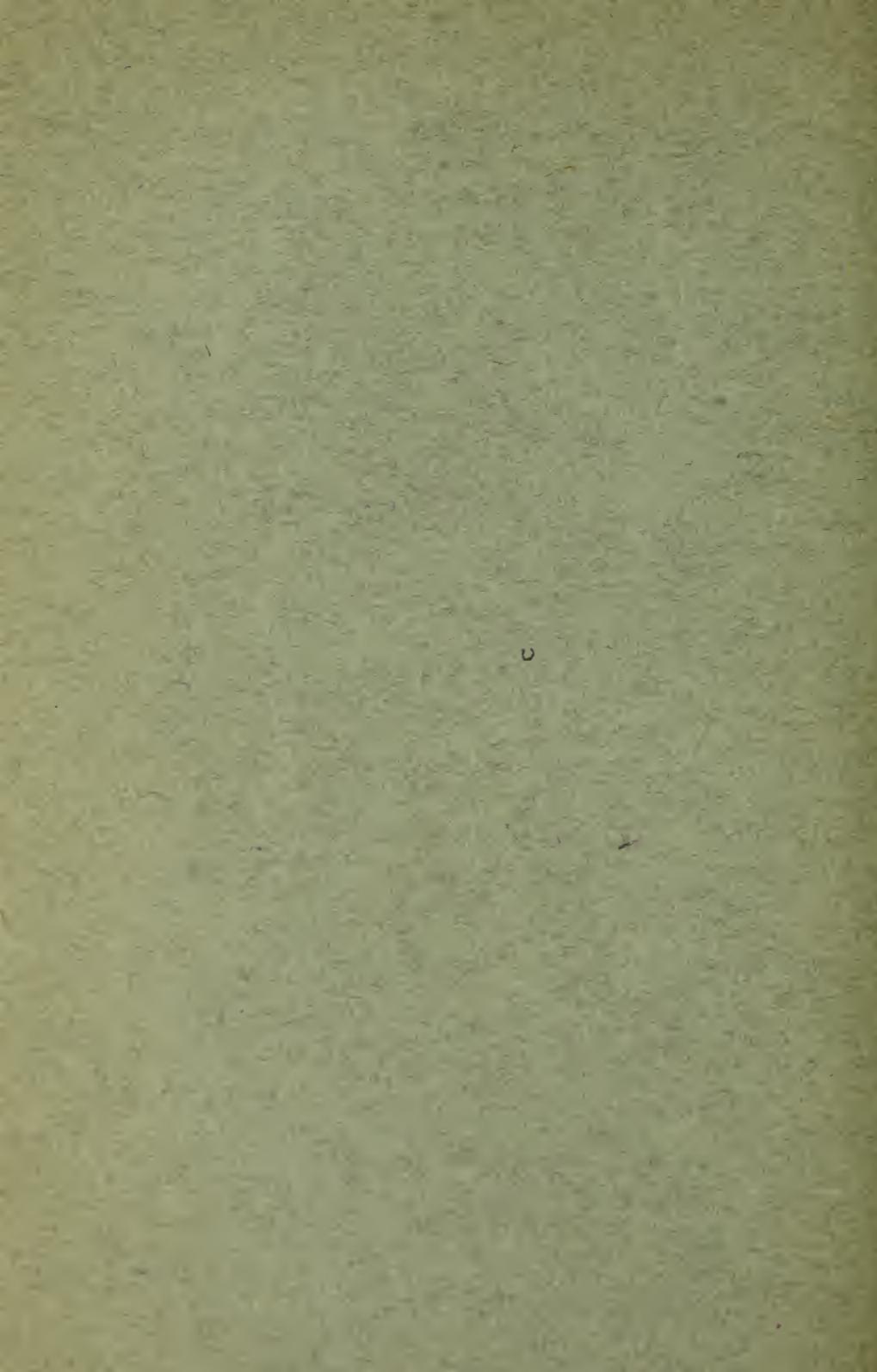
SCHOOL OF ECONOMICS

1921-1922



PITTSBURGH, PENNSYLVANIA

PUBLISHED BY THE UNIVERSITY



UNIVERSITY OF PITTSBURGH

BULLETIN

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**BOARD OF TRUSTEES OF THE UNIVERSITY OF
PITTSBURGH**

(Ex-Officio)

The Governor of the Commonwealth of Pennsylvania.
The Mayor of the City of Pittsburgh.
The Chancellor of the University.

ELECTED

Class I. Term expires June, 1924.

1893	Andrew William Mellon	Pittsburgh
1900	James Henry Lockhart	Pittsburgh
1903	Thomas Harlan Baird McKnight	Pittsburgh
1903	Thomas Patterson	Pittsburgh
1911	John Knox McClurkin	Pittsburgh
1912	John Crawford Wallace	New Castle
1913	Alfred Reed Hamilton	Pittsburgh
1917	William Lewis Clause	Pittsburgh
1917	Benjamin Gilbert Follansbee	Pittsburgh
1919	Ogden Mathias Edwards	Pittsburgh

Class II. Term expires June, 1922.

1890	Benjamin Thaw	Pittsburgh
1904	William Lucien Scaife	Pittsburgh
1907	Joseph Clifton Trees	Pittsburgh
1908	Walther Riddle	Pittsburgh
1914	George Sturgis Oliver	Pittsburgh
1916	Richard Beatty Mellon	Pittsburgh
1916	The Governor of Pennsylvania	Harrisburg
1918	George Breed Gordon	Pittsburgh
1920	Charles Wcsley Ridinger	Pittsburgh
1920	Isaac W. Frank	Pittsburgh

Class III. Term expires June, 1923.

1882	Rt. Rev. Cortlandt Whitehead	Pittsburgh
1889	William Jacob Holland	Pittsburgh
1902	George Hubbard Clapp	Pittsburgh
1906	Howard Heinz	Pittsburgh
1907	Andrew Jackson Kelly	Pittsburgh
1907	Samuel Alfred Taylor	Pittsburgh
1914	Henry Clay McElroy	Pittsburgh
1920	David Aiken Reed	Pittsburgh
1920	William Penn Snyder, Jr.	Pittsburgh
1920	Homer David Williams	Pittsburgh

CALENDAR

1921.

College Entrance Examinations.....	Mon.-Sat., June 20-25
Summer Session Registration.....	Fri.-Sat., July 1-2
Summer Session begins (8 weeks).....	Tues., July 5
Summer Session ends.....	Sat., Aug. 27
First Semester Registration.....	Mon.-Sat., Sept. 19-24
First Semester Begins.....	Mon., Sept. 26
Thanksgiving Recess.....	Thurs.-Fri.-Sat., Nov. 24-25-26
Christmas Recess.....	Mon.-Sat., Dec. 19-31

1922.

Work resumed	Tues., Jan. 3
First Semester ends	Sat., Feb. 4
Second Semester Registration.....	Mon.-Wed., Feb. 6-8
Second Semester Classes begin	Thurs., Feb. 9
Charter Day (Sunday, February 19) Celebration	Mon., Feb. 20
Washington's Birthday Holiday	Wed., Feb. 22
Easter Recess	Mon.-Sat., April 10-15
Second Semester ends	Sat., June 10
Baccalaureate Sermon	Sun., June 11
Commencement	Wed., June 14

FACULTY

John Gabbert Bowman, A.M., LL.D., Chancellor.
Samuel Black McCormick, D.D., LL.D., Chancellor Emeritus.
S. B. Linhart, A.M., D.D., Secretary of the University.
John Gilbert Quick, B.S., University Registrar.
Albert Bayard Wright, M.A., Dean, Professor of Public and Business Administration.
J. T. Holdsworth, Ph.D., Professor of Economics and Finance.
Francis Newton Thorpe, Ph.D., LL.D., Professor of Political Science and Constitutional Law.
Francis Tyson, Ph.D., Professor of Economics.
Charles Reitell, Ph.D., Professor of Accounting.
Charles Arnold, A.B., B.S. in Journalism, Professor of Journalism.
James C. Reed, B.L., LL.B., Professor of Business Law.
M. K. McKay, Ph.D., Professor of Economics.
Louis K. Manley, Ph.D., Professor of Political Science.
Montfort Jones, A.M., Assistant Professor of Finance.
Paul D. Converse, M.A., Assistant Professor of Commerce.
*Joseph K. Folsom, Ph.D., Assistant Professor of Social Economics.
Donald M. Marvin, Ph.D., Assistant Professor of Social Economics and Statistics.
Victor W. Bennett, M.A., Assistant Professor of Accounting.
Maxwell Ferguson, M.A., LL.B., J.D., Assistant Professor of Economics.
Gustave L. Schramm, M.A., Instructor in Government.
Charles Christler, A.B., LL.B., Instructor in Economics and Business Law.
Oscar I. Harter, B.S. in Economics, Instructor in Economics and Sociology.
Helen Glenn Tyson, A.B., Instructor in Social Service.
Elizabeth Cannon, B.S., R.N., Instructor in Public Health Nursing.
Harold M. Baer, B.A., Instructor in Economics.
Robert W. Semenow, B.S. in Economics, Instructor in Economics and Business Law.
Miles Humphreys Jones, A.B., LL.B., Instructor in Economics and Business Law.
Priscilla E. Porter, B.S. in Economics, Instructor in Economics.
Charles Scovel, A.M., Lecturer in Insurance.
Roland McCrady, B.S. in Economics, LL.B., Lecturer in Business Law.
Howard C. Kidd, M.A., Lecturer in Foreign Trade.
John S. Keir, M.A., Lecturer in Industry.
John Yates, A.B., Lecturer on Social Work.
David J. Terry, A.B., Lecturer on Child Welfare.
Eleanor Hanson, Lecturer on Social Case Work.
B. F. Ashe, B.S. in Economics, Lecturer in Industry.
C. C. Sheppard, C.P.A., Lecturer in Accounting.

*On leave of absence.

The faculty list here given is for the academic year 1920-21. As the departments of Economics, Political Science and Sociology have been transferred to the College, members of these departments will hereafter be listed in the bulletins of the College.

GENERAL INFORMATION

HISTORY OF THE UNIVERSITY

The University of Pittsburgh was founded by charter from the Commonwealth of Pennsylvania as Pittsburgh Academy in 1787. In 1819 a second charter was granted making the Western University of Pennsylvania the legal successor of the Pittsburgh Academy. In 1908 the University received its present name thus giving it a continuous history of one hundred and thirty-one years.

Since the removal in 1908 to the present location in Oakland, in the great educational and civic center of Pittsburgh, the University has grown from 1,240 to 6,100 students.

The University of Pittsburgh was founded by the State to provide higher education in Western Pennsylvania and throughout its history has been partially supported by the State.

The Alumni of the University, many of whom are among the leading citizens of Pennsylvania have rendered efficient service in every department of the varied life and interests of the State.

Sound scholarship and an atmosphere which promotes the spiritual life of students and Faculty have always been characteristic of the University.

At the present time the University includes the following Schools, named, except Chemistry, in the order of their founding: The College, Astronomy, (Allegheny Observatory) Engineering, Law, Medicine, Pharmacy, Dentistry, Mines, Education, Economics, also the Graduate School and the Mellon Institute. The Extension Division offers certain courses to non-resident students.

The Evening School of Economics, Accounts and Finance and Saturday and Evening classes offer courses to those who are unable to attend the regular classes.

A more complete history of the University will be found in the General Catalog.

The School of Economics was organized as a division of the University in 1910 in response to the growing demand for university training for business. The registration for the first year of the school was 54. This number has increased, until for the academic year 1920-21, the enrollment was 719.

Reorganization of the School of Economics

By a recent action of the Board of Trustees the School of Economics becomes a school of business administration confining its work strictly to preparing young men and women for business careers. In pursuance of this policy the courses in Journalism and Social Work have been discontinued and the Social Science departments—Economics, Political Science, and Sociology have been transferred to The College. Under the new program, completion of a two year pre-business course offered by The College, or its equivalent, will be required for admission to the School of Economics. The work of the school will consist of a two year professional course at the successful conclusion of which the degree B.S. in Economics will be awarded. For the year 1921-22 all students

previously registered in the School of Economics will continue in the School except regularly classified students who are unable to secure Sophomore standing by September, 1921. In succeeding academic years students will be admitted to the School only in accordance with the requirements for admission as stated elsewhere in the bulletin.

LOCATION

The School of Economics, in State Hall may be reached by street cars via Fifth Avenue or Forbes Street; the nearest stop is Bigelow Boulevard.

The present site of the University, purchased in December, 1907, is forty-three acres in extent and forms a part of the historic Schenley Farms in Oakland. It is one block from the Schenley Hotel. The Memorial Hall, the Armory, and the Twentieth Century Club face the campus of the University. Only a few yards away are the buildings of the University Club, Athletic Club, the new Masonic Temple, and Syria Mosque. Three blocks distant is the magnificent Carnegie Institute, with its Museum, its Library, its Art, and its Music, and the Phipps Conservatory. Other public buildings are gathering around the same spot. The University is the center of the institutional and educational life of the city and of a great region round about.

PURPOSE OF THE SCHOOL OF ECONOMICS

The School of Economics offers a fundamental program in business administration for young men and women who aspire to business careers.

Modern business is marked by such intricacy of organization and complexity of operation that beginners in business dependent upon experience alone for their business training find it difficult to visualize an organization as a whole, to analyze its functions and relations, to grasp the significance of its problems, or to understand the principles and policies of its administration. College graduates who enter business without knowledge of the principles governing the structure, policies and control of business organization face a long and discouraging probationary period preliminary to definite advancement. To shorten this period and facilitate the individual's progress in business the School of Economics aims to give its students familiarity with general business facts and principles and practice in dealing with business problems, as a preparation, not as a substitute for experience.

The School purposes to give breadth and thoroughness to a program of business fundamentals rather than to offer highly specialized preparation in particular fields or functions of business which should, and can be secured only from actual experience within the business organization. Accordingly, the plan of instruction provides that each regular student shall pursue prescribed courses concerned with basic facts and principles, a working knowledge of which is believed to be essential in all business fields. The fields of instruction are coordinated with the purpose of presenting a broad perspective of the conditions and problems surrounding business enterprise and developing in the student, a point of view and habit of mind which promise clear thinking, sound judgment and reliable character for later business experience.

CURRICULUM OF THE SCHOOL OF ECONOMICS

The curriculum of the School is organized as a unit and is designed primarily for students who plan to complete the full course of two years. Changes cannot be made to provide for those who plan to spend only one year in the study of business subjects. The aim in all of the instruction is to furnish the general basis of business facts and theory which the beginner finds difficult to get in his early business experience. The School does not pretend to cover the detailed technique and routine of particular industries or businesses. The instruction is, so far as is practicable, conducted on the problem method, based upon class room discussion and field work.

The elements of the curriculum are:

1. REQUIRED COURSES. The School believes that principles basic to all business experience should be known to each student. The following courses are therefore required.

Business Economics	4 credits
Law of Business Agreements	8 "
Principles of Accounting	8 "
Money and Banking	4 "
Marketing	4 "
Statistical Method	4 "
Business Organization	
or	
Industrial Management	4 "
Business Policy	4 "
	—
	40 credits

2. ELECTIVE COURSES. The minimum credit requirement for graduation from the School of Economics is 64 credits, of which 40 constitute required courses. During the senior year 24 credits may be elected, subject to the approval of the adviser. A limited number of courses offered by other Schools of the University may be selected as electives. In each case the approval of the Dean must be secured both as to the relation of the course to the student's program and as to the credit to be given.

3. INDIVIDUALIZED PROGRAM. The effort of the School is not confined to the giving of courses. Through periodic conference with instructors, both individual and group, and through supplementary requirements not a part of the course program the faculty will endeavor to adjust the student's efforts to his needs. The purpose of the School is educational not informational; it seeks to develop in each student the power to grapple with and solve his life problems.

4. COORDINATION. The course program of each student will be co-ordinated through monthly general examinations, group conferences on the supplementary required readings, and in the Senior year through the course in Business Policy.

5. FIELD WORK. Each student will be required to do a large amount of field work consisting of (a) supervised employment in the summer between the Junior and Senior years (b) field work assigned in various

courses and (c) solution of actual business problems in the plant or business as a part of the course in Business Policy.

SOPHOMORE CURRICULUM FOR 1921-22

For the year 1921-22 only the course program for Sophomores in the School of Economics will be:—

English	6 credits
Political Science	6 "
Economics	6 "
Psychology	3 "
Physical Education	2 "
Elective	9 "
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Total	32 credits

DEGREE REQUIREMENTS

The faculty of the School of Economics will recommend the granting of the degree Bachelor of Science in Economics upon the satisfactory completion of the following requirements:

1. Completion of 128 semester hour credits including (a) completion of the pre-business course with a total of 64 credits or its equivalent and (b) completion of 64 credits in the School of Economics including all required work.
2. Passing a general examination set by the Faculty. The general examination will include (a) a test of ability in both written and spoken English (b) a written examination covering the work of the business administration course and (c) an oral examination covering the pre-business course, the business administration course and the required readings.

Required Readings

Beginning with the academic year 1921-22 all regular students in the School of Economics will be assigned readings in subjects related to but not a part of the curriculum. The objects of this requirement are, (a) to furnish a basis for co-ordinating the several courses of the student's program, (b) to supplement the professional curriculum with the elements of liberal culture, (c) and, to diversify and broaden the mental interests of the student. Students will meet members of the faculty periodically in small groups for informal discussion of the subject matter of the readings. No University credit is given for this work.

Laboratories

The School of Economics maintains in Room 2 State Hall a Laboratory of Business and Statistical Devices. An accounting laboratory will be made available for the use of the students for the academic year 1921-22.

Advisers

On registration each student is assigned to an adviser who thereafter serves as personal counselor throughout the student's course.

Credits

All University courses are recorded in terms of "credits." A "credit" is given for eighteen hours or recitation, lecture, discussion, or other class exercise. Thus a course requiring two hours of recitation a week for one semester (about eighteen weeks) gives two credits. In the description of courses the number of credits given for each course is stated.

REQUIREMENTS FOR ADMISSION

Beginning with the first semester of the year 1921-22, all applicants desiring to enter the School of Economics will be required to complete the work of the Freshman and Sophomore years in The College. Those previously registered in the School of Economics will continue therein, except the regularly classified student who has not acquired Sophomore standing by September, 1921.

The prerequisites for admission to the course in The College which fulfills the requirements for admission to the School of Economics include graduation from a first grade secondary school and the presentation of 15 units of preparatory work as follows:

SPECIFIC UNITS

English	3
Social Science (History, Civics, etc.).....	1

ELECTIVE UNITS

The remaining 11 units may be offered from the following list, provided that the aggregate number of units (specific and elective) does not exceed the maximum indicated below:

SUBJECTS

	Maximum
English	4
American History or Am. Hist. and Civics.....	1
Ancient History (Greek and Roman)	1
Medieval and Modern History	1
English History	1
Algebra (through quadratics)	1
Algebra (beyond quadratics)	½
Geometry (plane)	1
Geometry (solid)	½
Trigonometry	½

Latin	4
Greek	3
German	4
French	4
Spanish	4
Physics	1
Chemistry	1
Physiography	1
General Science	1
Biology	1
Zoology	1
Botany	1
Economics	1
Physiology	½
Geology	1
Astronomy	1
*Agriculture	1
*Drawing	1
*Domestic Art	½
*Domestic Science	1
*Manual Training	1
*Fine Arts	½
*Industrial Arts	½
*Stenography	2
*Bookkeeping	2
*Typewriting	½
*Commercial Geography	½

*Vocational subjects.

Not less than $\frac{1}{2}$ unit is accepted in any subject, and not more than 4 units in Vocational subjects.

ADMISSION TO SCHOOL OF ECONOMICS

1. Students entering the University at the beginning of the year 1921-22, will be required to complete the following courses in The College in preparation for admission to the School of Economics. It is to be understood, however, that the arrangement of the courses is tentative, and subject to revision as occasion may demand:

FIRST YEAR

Courses	Credits
English	6
Foreign Language	6
Human Progress	6
Mathematics or a Laboratory Science	8
Elective(History preferred)	6
Physical Education (Required)	0
Total	32

SECOND YEAR	
English	6
Foreign Language	6
Political Science	6
Psychology, Philosophy or kindred subject	6
Principles of Economics	6
Elective	2
Physical Education (Required)	0
	<hr/>
Total	32

2. Students from other institutions offering the equivalent of the pre-business course may be admitted to regular classification in the School of Economics provided they have maintained an average of C in the work offered for admission.

3. **SPECIAL STUDENTS.** Persons 21 years of age or over who have had at least three years of business experience may be admitted as special students provided they shall satisfactorily pass a test in the required English of the pre-business course. Such persons when admitted are not candidates for degrees and must maintain an average of C in all work carried.

4. **ADVANCED STANDING.** Students from other schools of business administration whose entrance requirements are equivalent to those of the School of Economics, may be credited with the work completed, and be admitted to advanced standing without examination.

For particulars concerning either admission or advanced standing apply to the Registrar.

APPLICATION

The attention of prospective students is directed to the following outline of the procedure of admission. By following these directions, confusion and delay will be avoided.

1. When the applicant has reached a decision to apply for admission, a request for an application blank should be mailed to the Registrar, Room 109 State Hall, University of Pittsburgh. In this request there should be a definite indication of the course in which the candidate is interested.

2. When this application blank has been received, it should be filled in according to instructions and returned without delay to the Office of the Registrar.

3. Upon receipt of this form, the Registrar will send for the record of the applicant's preparatory education and after these credentials have been examined the applicant will be notified concerning admission possibilities. If the entrance requirements have been satisfied a Registration Permit will be issued by the Registrar. This form must be presented at the time of registration.

4. Accompanying the Registration Permit will be a Vaccination Report Card. This form should be filled in and signed by the applicant's physician and returned at once to the Office of the Registrar. No registration will be allowed if this Report is not filed.

REGISTRATION

Registration in the School of Economics, will be conducted during the week of September 19, 1921. Candidates are advised to register early during the period. Choice of sections in any course will be possible only on condition of early registration.

TUITION AND FEES

The annual rate of tuition in the School of Economics is \$210, payable in two installments, \$110 upon registration at the opening of the first semester and \$100 upon registration for the second semester.

The tuition for the first semester entitles the students to admission to all athletic events and certain other activities under the jurisdiction of the Advisory Board of Student Activities.

Full tuition is charged all students registered for twelve semester credits or more. The tuition charge for less than this number is at the rate of \$7.00 a credit.

A total of \$840.00 for tuition must be paid before the degree is granted, even though the course may be completed in less than four years. Students entering with advanced standing are entitled to a proportionate adjustment.

Laboratory Fees covering the use of laboratories and equipment are charged in addition to the tuition as follows:

Biology	\$ 5.00 per semester for each course
Chemistry	7.50 " " " "
Physics	5.00 " " " "

A charge is made for laboratory supplies and other materials used in courses requiring them. Supply cards, costing \$5.00 each are provided for this purpose, and must be obtained at the office of the Treasurer at the time of registration.

A fee of \$5.00 is added to the tuition if registration is not completed within the dates specified.

A fee of \$5.00 is charged for each examination for advanced standing without regard to the number of credits involved. The same fee is charged for every re-examination.

A fee of \$10.00 for each diploma is due upon graduation. In The Graduate School an extra charge is made for the hood.

The foregoing figures do not include charges for books, instruments, etc.

REFUNDS

No refund of tuition will be allowed if a student withdraws from a course after the middle of the semester or term. Application for refund will be considered only when made at the time of withdrawal.

HOUSING AND EMPLOYMENT BUREAU

The University inspects the boarding and rooming houses in the district and keeps a record of those which have been approved. During the week of registration a staff of workers assists students to find suitable lodgings and boarding places. At the time of the publication of this bulletin living expenses were reported to be as follows:

Per Week	Minimum	Average
Board	\$8.00	\$9.00—\$10.00
Room	3.00	4.00— 5.00

These estimates are based upon actual facts, as discovered by careful investigation. There is, of course, a large personal variation in such expenses. To this estimate should be added the amount spent for laundry, amusement, etc.

Through the Employment Bureau every effort is made to help the student who is dependent upon his own resources. The Bureau has established definite relations with a large number of business and industrial concerns in the Pittsburgh district, and at the present time, these concerns depend almost entirely upon this agency to supply their part-time help. For information concerning this service apply to the Secretary of the Bureau, Room 1, State Hall.

DEPARTMENT OF PHYSICAL EDUCATION

Every student in the undergraduate schools, upon entering the University, is required to take a complete physical examination. This is made by the Department of Health and Physical Education during registration week and the following two weeks. Appointment for this examination is made at the time of registration. A record is kept of each case, together with a medical history, and the student is advised of any physical defects discovered and of ways and means for their correction. Subsequent physical examinations are made in cases requiring special attention. All candidates for athletic teams are carefully examined before being allowed to compete.

Physical education is required. The work must be taken during the freshman and sophomore years. Two 2-hour periods a week throughout the semester are required of all Freshmen and Sophomores. The two years' work necessary for graduation must include ability to pass the swimming test. In the case of those unable to swim, instruction in swimming may be substituted for work on the gymnasium floor, two swimming periods being regarded as the equivalent of one gymnasium period. Exemption from gymnasium classes and credit for Physical Education are allowed for participation in athletics, upon recommendation of the coach and approval of the Director of Physical Education and Athletics.

RESERVE OFFICERS' TRAINING CORPS

The University maintains three units of the Reserve Officers' Training Corps, namely: Infantry, Coast Artillery, and Motor Transport. These units were established under provision of acts of Congress for the purpose of furnishing men of education who will have sufficient train-

ing to act as officers in any army that the United States will have occasion to raise. The courses are divided into two 2-year periods. The first corresponds to the Freshmen and Sophomore years; the second to the Junior and Senior years. Each period, once entered upon, becomes a prerequisite for graduation. The first period, known as the basic course, is designed to train men to act as non-commissioned officers in any future emergency. The second course, known as the advanced course, is designed to train men as officers.

In addition to the patriotic incentive, Congress has offered material inducements to students to take the course. The uniforms, equipment and textbooks are lent throughout the four years. The Government offers to students a money consideration known as commutation of rations, amounting approximately to \$300.00 in the two years. The only demand made upon the student besides his University hours is for six weeks in the vacation between the Junior and Senior years at the training camp. All his expenses at this camp, including transportation, are paid. Upon graduation the student may receive a commission in the Officers' Reserve Corps if recommended by his instructor.

The University, co-operating with the Government, gives, as additional inducements, (a) University credits toward graduation and (b) Exemption from Physical Education, conditioned upon physical fitness. For further information concerning the R. O. T. C. apply to the Department of Military Science and Tactics.

DESCRIPTION OF COURSES

ACCOUNTING

101, 102. PRINCIPLES OF ACCOUNTING AND ACCOUNTING PRACTICE

1 & 2 Sem. 4 cr. ea.

This course considers the purpose and scope of accounting; the financial transaction and its relation to the various activities of a business enterprise; accounts as media for classifying transactions; factors of financial condition and operation; theory and method of account classification; significance and relation of the various accounts; the media for, and method of, recording financial transactions; the accounting system; collection, organization and presentation of financial data; financial statements, their classification, form content, significance, interpretation and use as bases for administration. Laboratory work will parallel the discussion of the theory of accounting in the fundamental processes of accounting, such as accruals, closing entries, trial balances and the preparation of financial statements with the variations and peculiarities incident to sole proprietorship, co-partnership, corporations, consolidations, mergers, holding companies receivership and liquidations. *Assistant Professor Bennett.*

103. INDUSTRIAL COSTS AND ACCOUNTING

1st Sem. 4 cr.

The design and installation of cost systems; benefits to be derived from accurate costs; purchase, use and storage of materials; the payroll and methods of securing labor costs; types of cost system for various industries plan of wage payment; efficiency work and scientific management; depreciation; the factory burden, its determination and apportion-

ment, including a study of scientific machine rates; inspection of cost systems in use and the literature of cost accounting. *Professor Reitell.*

104. ADVANCED INDUSTRIAL ACCOUNTING

2nd Sem. 4 cr.

Advanced study of factory accounting problems in plants open to personal observation. Practice in observation, analysis, originality and judgment through the assignment of problems requiring for solution a practicable system of accounts and accounting method, with provision for adequate operating reports and statistics. *Professor Reitell.*

201, 202. ACCOUNTING PROBLEMS

1 & 2 Sem. 2 cr.

This course has a two-fold purpose; first, to teach generalization and develop ability to reason from a statement of facts without the books of account; second, to permit an intensive study of many of the variations in topics in accounting practice. The problems covered constitute a series complex in content and construction and varied in application. Auditing with practical work in actual audits, and devising systems for actual installation form a large part of the course. *Professor Reitell and Assistant Professor Bennett.*

BUSINESS ORGANIZATION AND MANAGEMENT

101. BUSINESS ECONOMICS

1 Sem. 4 cr.

The application of economic principles to business affairs. Attention will be directed to problems of production and consumption rather than to those dealing with economic value and distribution. Among the topics treated are: fundamental concepts, property, government, contract, competition, association; development of machine industry; changes in the size of representative business units; speculative enterprise; increasing and diminishing returns applied to particular industries; elasticity of demand and of prices; industrial and commercial concentration; encroachments on private property; social and governmental control. *Professor Wright.*

102. BUSINESS ORGANIZATION AND CONTROL

2 Sem. 4 cr.

A survey of the principles and forms of organization as found in various branches of business, functions and interrelation of principal and subsidiary departments and the adaptation of different types of organization to particular industries. Consideration is given to the selection, qualifications and training of executives, methods of executive control and the operation of organization through various executive policies. *Professor Wright.*

104. PUBLIC RELATIONS OF BUSINESS

2nd Sem. 4 cr.

Relation of government to business and industry. Development of regulation in the United States. Legal, constitutional and political principles involved. *Professor Wright.*

201, 202. BUSINESS POLICY

1 & 2 Sem. 2 cr. ea.

Analysis and solution of a series of typical business problems from the point of view of the business executive. *Professor Wright and member of the staff.*

BUSINESS LAW

101, 102. LAW OF BUSINESS AGREEMENTS 1 & 2 Sem. 4 cr. ea.

The object of this course is to familiarize the student with the principles of law underlying ordinary business transactions. It includes contracts, their formation, operation, interpretation and discharge: Agency, formation of the contract of agency, rights and obligations of principals, agents and third parties, termination of the relation; Bailments, including contracts for pledging, hiring, and transporting personal property; Sales and mortgages of personal property; Leases, mortgages and sales of real estate; Suretyship and guaranty; Fire and life insurance contracts.

Professor Reed, Mr. McCrady.

103. LAW OF BUSINESS ORGANIZATIONS 1st Sem. 4 cr.

A more intensive study of the law of partnerships and corporations than would be possible in a general course in business law. It includes the formation of partnerships: the liability of the members of defectively incorporated associations; the test of a partnership; the powers, rights and liabilities of partners; the rights and remedies of creditors; dissolution of partnerships; the distribution of partnership assets; limited partnerships; corporations, their formation, nature, and management; corporate powers; mode of contracting; rights and liabilities of stockholders; duties and liabilities of promoters and officers; dissolution and winding up of a corporate business. *Professor Reed.*

104. LAW OF COMMERCIAL PAPER 2nd Sem. 4 cr.

An intensive study of the law of negotiable instruments based on the Negotiable Instruments Law of Pennsylvania. It includes the essentials of negotiable paper; a study of the contracts of the maker, acceptor, certifier, drawer, indorser, vendor, accommodator, and assurer; the rights of a holder in due course; the defenses to commercial paper; the payment and discharge of negotiable contracts. *Professor Reed.*

COMMERCE

101. PRINCIPLES OF MARKETING 1 & 2 Sem. 4 cr.

The principal marketing methods and the work of different middlemen, brokers, wholesalers, auctions, produce exchanges and the various types of retailers. Co-operative marketing. Trade Associations. Some of the fundamental marketing policies such as stock turnover, price policies, market analysis, etc. The fundamental principles of salesmanship. *Professor Converse.*

102. MARKETING PROBLEMS 2 Sem. 4 cr.

Considers the principles involved in some of the important marketing problems such as purchasing, merchandising, price policies, credit policies, sales management, marketing of farm products, etc. *Professor Converse.*

106. PRINCIPLES OF ADVERTISING 1st Sem. 4 cr.

Analysis of the elements and factors which control human action in buying and selling. Place and function of advertising, study of adver-

tising, planning, research and analysis, preparation of copy, selection of media and placing of copy, relations of advertiser, agency, and publisher; social and economic aspects.

108. PRINCIPLES OF INSURANCE

2nd Sem. 4 cr.

A statement of the underlying principles upon which all forms of insurance are based. Relation of insurance to other economic agencies, insurance, principles underlying the making of the contract or policy, different types of insurance.

FINANCE

101, 102. PRINCIPLES OF MONEY AND BANKING

1 & 2 Sem. 4 cr. ea.

The theory and history of money; contemporary status of the chief monetary systems, the value of money; bimetallism and kindred systems; price quotations and price measurement; principles of coinage; government paper issues and legal tender; international monetary relationship; fundamental principles of banking; credit and its relation to money; relation of the bank to economic life. Organization, operation, and supervision of banks. Savings banks and trust companies. Detailed study of the Federal Reserve system and its operation. Comparison with foreign banking systems. *Assistant Professor Jones.*

103, 104. CORPORATION FINANCE AND INVESTMENTS

1 & 2 Sem. 4 cr. ea.

This course gives in outline the main financial problems of the modern business corporations. Some of the main topics treated are: the form of capitalization; capitalization in relation to assets—in relation to the income account, and to the state; financing an extension; financing the purchase of equipment; the holding company, and financial combinations; marketing of securities; underwriting syndicates, the joint account, distribution of profits and losses; transfer of securities; the maturity and refunding of bonds; the corporate income and its disposition; receiverships and reorganizations; promotions.

The point of view and the interests of the investor are considered and the general principles of investment are defined. *Assistant Professor Jones.*

105, 106. PUBLIC FINANCE (ECONOMICS 23 AND 24)

1 & 2 Sem. 3 cr. ea.

The relation of taxation to business. Public expenditures and sources of revenue; income, inheritance, tariff, excise taxes, the general property and other kinds of taxes in principle and in administration. The incidence of taxes. Public debts. Financial administration. *Professor McKay.*

FOREIGN TRADE

101, 102. PRINCIPLES AND METHODS OF FOREIGN TRADE

1 & 2 Sem. 3 cr. ea.

Economic theory of international trade; significance of foreign trade, merchant marine, and port development; national policies affecting international commerce; export and import methods; export organization; governmental assistance.

Examination of the geographical principles, economic status and commercial prospects of the principal foreign countries of the world, from the point of view of their resources, their demand for American products and the channels of trade. The principal countries are considered indi-

vidually with reference to their commercial and industrial development, typical organization of industries, method of distribution, influence of transportation systems and organization of export trade. *Mr. Kidd.*

INDUSTRIAL MANAGEMENT

101. INDUSTRIAL TECHNOLOGY

1st Sem. 4 cr.

A study of the history, location, manufacturing processes, competitive conditions and outstanding problems of the leading industries of the United States. Analysis of productive processes, and the influence of technological changes on the institutional framework of Economic Society. Problems of industrial technique, national resources and production for wide markets. *Professor Reitell.*

102. INDUSTRIAL ORGANIZATION AND MANAGEMENT

2nd Sem. 4 cr.

A fundamental course in the principles of internal organization and management of industrial enterprise. It will include a discussion of the location of plants, layout and types of construction; materials, equipment, and power; planning and routing; statistics and accounting; scientific management; purchasing, traffic, credit and collection. *Professor Reitell.*

103, 104. INDUSTRIAL RELATIONS (ECONOMICS 21, 22) *1 & 2 Sem. 3 cr. ea.*

Issues in the relation of employer and employee. Labor organization and legislation. Employers' experiments. *Professor Tyson.*

105, 106. PERSONNEL ADMINISTRATION

1 & 2 Sem. 2 cr. ea.

The organization, management and functions of employment departments. Selection and placement of the workman; wage setting; adjustment and follow up; housing and education; safety; sanitation and health; housing and transportation; benefit associations. Coordination of personnel department with other departments of the business. *Mr. Ashe.*

STATISTICS

101. INTRODUCTION TO STATISTICAL METHODS

1st Sem. 4 cr.

Elementary principles of classification, analysis, and presentation of statistical materials, with primary emphasis on economic data. Laboratory work.

102. BUSINESS STATISTICS

2nd Sem. 4 cr.

The technique of statistical investigation applied to business problems and data. The course deals with primary and secondary investigation; statistical units, preparation, filling and editing of schedules; classification and tabulation of returns; presentation of results.

TRANSPORTATION

TRAFFIC AND TRANSPORTATION

1 & 2 Sem. 4 cr. ea.

Social and industrial significance of modern transportation, development of railroad transportation, theory and practice of rate making, government regulation, classification and tariffs, time and preference freight, private carlines, industrial breakage and terminal service; express rates and service. Development and significance of motor transport.

History and present status of inland waterways and ocean transportation in the United States; types of ocean carriers; methods of ocean shipping; public aid and regulation. *Professor Converse.*

UNIVERSITY OF PITTSBURGH
PITTSBURGH, PENNSYLVANIA

THE COLLEGE
SCHOOL OF ECONOMICS
SCHOOL OF EDUCATION
SCHOOL OF ENGINEERING
SCHOOL OF MINES
GRADUATE SCHOOL
MELLON INSTITUTE
THE OBSERVATORY
SCHOOL OF MEDICINE
SCHOOL OF LAW
SCHOOL OF DENTISTRY
SCHOOL OF PHARMACY

*Separate bulletins are issued by each School and
may be had upon application to the Registrar, 109
State Hall, University of Pittsburgh, Pittsburgh, Pa.*

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2/23 Paul D Converse

UNIVERSITY OF PITTSBURGH
BULLETIN

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No. 12

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UNIVERSITY OF ILLINOIS

SCHOOL OF ECONOMICS

1922-1923



PITTSBURGH, PENNSYLVANIA

PUBLISHED BY THE UNIVERSITY

UNIVERSITY OF PITTSBURGH BULLETIN

Vol. 18

June 5, 1922

No. 12

SCHOOL OF ECONOMICS (A School of Business Administration) 1922-1923



PITTSBURGH, PENNSYLVANIA

The University of Pittsburgh Bulletin is published by the University of Pittsburgh and is issued tri-monthly. Entered March 13, 1914, at the Post Office at Pittsburgh, Pa., as second-class matter under Act of Congress of August 24, 1912.

**BOARD OF TRUSTEES OF THE UNIVERSITY OF PITTSBURGH
1922-23**

The Governor of the Commonwealth of Pennsylvania (*Honorary*)
 The Mayor of the City of Pittsburgh.
 The Chancellor of the University.

Class I. Term expires June, 1924

Elected

1893	Andrew William Mellon	Pittsburgh
1900	James Henry Lockhart	Pittsburgh
1903	Thomas Harlan Baird McKnight	Pittsburgh
1903	Thomas Patterson	Pittsburgh
1911	John Knox McClurkin	Pittsburgh
1912	John Crawford Wallace	New Castle
1913	Alfred Reed Hamilton	Pittsburgh
1917	Willian Lewis Clause	Pittsburgh
1917	Benjamin Gilbert Follansbee	Pittsburgh
1919	Ogden Mathias Edwards, Jr.	Pittsburgh

Class II. Term expires June, 1925

1890	Benjamin Thaw	Pittsburgh
1904	William Lucien Scaife	Pittsburgh
1907	Joseph Clifton Trees	Pittsburgh
1908	Walther Riddle	Pittsburgh
1914	George Sturgis Oliver	Pittsburgh
1916	Richard Beatty Mellon	Pittsburgh
1918	George Breed Gordon	Pittsburgh
1920	Charles Wesley Ridinger	Pittsburgh
1920	Isaac William Frank	Pittsburgh
1909	Edward Vose Babcock	Pittsburgh

Class III. Term expires June, 1923

1882	Rt. Rev. Cortland Whitehead	Pittsburgh
1889	William Jacob Holland	Pittsburgh
1902	George Hubbard Clapp	Pittsburgh
1906	Howard Heinz	Pittsburgh
1907	Andrew Jackson Kelly	Pittsburgh
1907	Samuel Alfred Taylor	Pittsburgh
1914	Henry Clay McEldowney	Pittsburgh
1920	David Aiken Reed	Pittsburgh
1920	William Penn Snyder, Jr.	Pittsburgh
1920	Homer David Williams	Pittsburgh

CALENDAR

1922

June 19-24; Mon.—Sat	College Entrance Board Examinations
July 5—Wed	Summer Session Registration
July 5—Aug. 30	Summer Session
Aug. 15—Tue	Summer Convocation
Aug. 29-30; Tues.—Wed.	Entrance Examinations
Sept. 18—Mon.	Re-examination (Second Semester 1921-22)
Sept. 20-23; Wed.—Sat.	First Semester Registration
Sept. 25—Mon.	First Semester begins
Oct. 11—Wed.	Fall Convocation
Nov. 11—Sat.	Armistice Day—Holiday
Nov. 30—Dec. 2; Thursday.—Sat.	Thanksgiving Recess
Dec. 18—Mon.	Christmas Recess begins

1923

Jan. 2—Tues.	Classes resume
Jan. 27—Feb. 2; Sat.—Fri.	First Semester Examinations
Feb. 3—Sat.	First Semester ends
Feb. 1-3; Thursday.—Sat.	Entrance Examinations
Feb. 8-10; Thurs.—Sat.	Second Semester Registration
Feb. 12—Mon.	Second Semester classes begin
Feb. 19—Mon.	Charter Day
Feb. 22—Thurs.	Washington's Birthday—Holiday
Feb. 24—Sat.	Re-Examinations (First Semester)
Mar. 26-31; Mon.—Sat.	Easter Recess
Apr. 2—Mon.	Classes resume
May 30—Wed.	Decoration Day—Holiday
June 4-9; Mon.—Sat.	Second Semester Examinations
June 9—Sat.	Second Semester ends.
June 10—Sun.	Baccalaureate Service
June 13—Wed.	Commencement

FACULTY

JOHN GABBERT BOWMAN, A. M., LL.D., Chancellor.

ALBERT BAYARD WRIGHT, B.S., M.A., Dean, Professor of Public and Business Administration.

S. B. LINHART, A.M., D.D., Secretary of the University.

JOHN GILBERT QUICK, B.S., University Registrar

JAMES STEELE GOW, A.B., Assistant to the Chancellor.

CHARLES REITELL, B.S., M.A., Ph.D., Professor of Accounting.

JAMES C. REED, B.L., LL.B., Professor of Business Law.

PAUL D. CONVERSE B.A., M.A., Professor of Commerce.

*HOWARD C. KIDD, A.B., M.A., Professor of Foreign Trade.

MONTFORT JONES, A.B., M.A., Assistant Professor of Finance.

VICTOR W. BENNETT, B.A., M. A., Assistant Professor of Accounting.

LAWRENCE I. MACQUEEN, A.B., M.A., Assistant Professor of Commerce.

JOSEPH M. GILLMAN, A.B., M.A., Assistant Professor of Business Statistics.

R. A. McCRADY, B.S., LL.B., Lecturer in Business Law.

SIDNEY S. HOEHL, A.B., LL.B., Lecturer in Law.

J. W. HOWARD, B.S., Lecturer in Insurance.

*Appointment effective July 1, 1922.

GENERAL INFORMATION

HISTORY OF THE UNIVERSITY

The University of Pittsburgh was granted a charter by the Commonwealth of Pennsylvania as Pittsburgh Academy in 1787. In 1819 a second charter was granted, creating the Western University of Pennsylvania as the legal successor of the Pittsburgh Academy. In 1908 its name was changed to the University of Pittsburgh. Thus the University has a continuous history of one hundred and thirty-five years.

Since its removal in 1908 to the present location in Oakland, in the great educational and civic center of Pittsburgh, the attendance has increased from 1,240 to 6,518 students.

The University of Pittsburgh was founded by the State to provide higher education in Western Pennsylvania. Throughout its history the University has been partially supported by the State.

The Alumni of the University, many of whom are among the leading citizens of Pennsylvania, have rendered efficient service in every department of the varied life and interests of the state.

Sound scholarship and an atmosphere which promotes the spiritual life of students and Faculty have always been characteristic of the University.

At the present time the University includes the following schools, named in the order of their founding. The College, Schools of Astronomy, (Allegheny Observatory) Engineering, Law, Medicine, Pharmacy, Dentistry, Mines, Education, Economics, also the Graduate School and the Mellon Institute.

The Evening School of Economics, Accounts, and Finance and Saturday and Evening classes of The College and School of Education offer courses to those who are unable to attend the regular classes.

A more complete history of the University will be found in the General Catalog.

The School of Economics was organized as a division of the University in 1910 in response to the growing demand for university training for business. The registration for the first year of the school was 54. This number has increased, until for the academic year, 1921-22, the enrollment was 525.

LOCATION

The School of Economics office, located in State Hall, may be reached by street cars via Fifth Avenue or Forbes Street; the nearest stop is Bigelow Boulevard.

The present site of the University, purchased in December, 1907, is sixty-eight acres in extent and forms a part of the historic Schenley Farms in Oakland. It is one block from the Schenley Hotel. The Memorial Hall, the Armory, and the Twentieth Century Club adjoin the campus of the University. Only a few yards away are the buildings of the University

Club, Athletic Club, the new Masonic Temple and Syria Mosque. Three blocks distant is the magnificent Carnegie Institute, with its Museum, its Library, its Art, and its Music, and the Phipps Conservatory. Other public buildings are gathering around the same spot. The University is the center of the institutional and educational life of the city and of a great region round about.

PURPOSE OF THE SCHOOL OF ECONOMICS

The School of Economics offers a fundamental program in business administration for young men and women who aspire to business careers.

Modern business is marked by such intricacy of organization and complexity of operation that beginners in business dependent upon experience alone for their business training find it difficult to visualize an organization as a whole, to analyze its functions and relations, to grasp the significance of its problems, or to understand the principles and policies of its administration. College graduates who enter business without knowledge of the principles governing the structures, policies and control of business organization face a long and discouraging probationary period preliminary to definite advancement. To shorten this period and facilitate the individual's progress in business the School of Economics aims to give its students familiarity with general business facts and principles and practice in dealing with business problems, as a preparation, not as a substitute for experience.

The School purposes to give breadth and thoroughness to a program of business fundamentals rather than to offer highly specialized preparation in particular fields or functions of business which should and can be secured only from actual experience within the business organization. Accordingly, the plan of instruction provides that each regular student shall pursue prescribed courses concerned with basic facts and principles a working knowledge of which is believed to be essential in all business fields. The fields of instruction are coordinated with the purpose of presenting a broad perspective of the conditions and problems surrounding business enterprise and developing in the student, a point of view and habit of mind which promise clear thinking, sound judgment and reliable character for later business experience.

CURRICULUM OF THE SCHOOL OF ECONOMICS

The curriculum of the School is designed primarily for those who plan to complete the four year course leading to the degree of Bachelor of Science in Economics. The aim in all of the instruction is to furnish the general basis of business facts and theory which the beginner finds difficult to get in his early business experience. The School does not pretend to cover the detailed technique and routine of particular industries or business. The instruction is, so far as is practicable, conducted on the problem method, based upon class room discussion and field work.

The elements of the curriculum are:

1. REQUIRED COURSES. The School believes that principles basic to all business experience should be known to each student. The following courses are therefore required:

Business Economics	4 credits
Law of Business Agreements	8 "
Principles of Accounting	8 "
Banking or Business Finance	4 "
Marketing	4 "
Statistical Method	4 "
Business Organization	4
or	
Industrial Management	4 "
Business Policy	4
	—
	40 credits

2. ELECTIVE COURSES. The minimum credit requirement for graduation from the School of Economics is 120 credits, of which 60, constituting the work of the first two years, are given under the jurisdiction of The College. Of the 60 credits given under the direction of the School of Economics, 40 constitute required courses. During the senior year 20 credits may be elected, subject to the approval of the adviser. A limited number of courses offered by other Schools of the University may be selected as electives. In each case the approval of the Dean must be secured both as to the relation of the course to the student's program and as to the credit to be given.

3. INDIVIDUAL PROGRAM. The effort of the School is not confined to the giving of courses. Through periodic conference with instructors, both individual and group, and through supplementary requirements not a part of the course program the faculty will endeavor to adjust the student's efforts to his needs.

4. COORDINATION. The course program of each student will be co-ordinated through monthly general examinations, group conferences on the supplementary required readings, and in the Senior year through the course in Business Policy.

5. FIELD WORK. Each student will be required to do a large amount of field work consisting of (a) supervised employment in the summer between the Junior and Senior years (b) field work assigned in various courses and (c) solution of actual business problems in the plant or business as a part of the course in Business Policy.

DEGREE REQUIREMENTS

The faculty of the School of Economics will recommend the granting of the degree Bachelor of Science in Economics upon the satisfactory completion of the following requirements:

1. Completion of 120 semester hour credits including (a) completion of the pre-business courses with a total of 60 credits or its equivalent and (b) completion of 60 credits in the School of Economics including all required work.
2. Passing a general examination set by the Faculty. The general examination will include (a) a test of ability in both written and spoken English (b) a written examination covering the work of the business administration course and (c) an oral examination covering the pre-business course, the business administration course and the required readings.

ENTRANCE REQUIREMENTS

The regular course in the School of Economics is four years in length. The work of the first two years is pursued in The College and, after the successful completion of the prescribed courses, the student's registration is transferred to the School of Economics, at the beginning of the Junior year.

Students entering the School of Economics should be prepared to offer sixty credits earned during the two years of a Liberal Arts course which should include the following branches:

English	12 credits
Modern Foreign Language	12 "
Natural Science	12 "
Mathematics	6 "
Economics	6 "
Political Science	6 "
Psychology	6 "

Applicants entering from other accredited institutions will be expected to submit credentials which satisfy these requirements.

The prerequisites for admission to groups I or II in the College, which fulfill the requirements for admission to the School of Economics include graduation from a first grade secondary school and the presentation of 15 units of preparatory work as follows:

English	3 units
Mathematics (Algebra or Composite Mathematics)	1 unit
History or Civics	1 unit
Electives	10 units

No advanced standing will be given for business courses taken during the freshman year.

An average of C in the work offered is required for regular admission to junior standing in the School of Economics.

SPECIAL STUDENTS

Persons 21 years or over who have had at least three years of business experience may be admitted as special students provided they shall

satisfactorily pass a test in the required English of the pre-business course. Such persons when admitted are not candidates for degrees and must maintain an average of C in all work carried.

APPLICATION

The attention of every prospective student is directed to the following outline of the procedure of admission. By following these directions confusion and delay will be avoided.

1. As soon as you reach a decision to enter, send to the Registrar, Room 109 State Hall, for an Application Blank upon which to enter your name, address, name of the school from which you have been graduated and the College Group in which you desire to register. If you have completed two years of the prescribed college work, make a definite statement to the effect that you are prepared to enter the Junior class of the School of Economics, otherwise it will be assumed that you are a candidate for admission to the Freshman class.

2. When this information has been received by the Registrar, a certificate for the transfer of your credits will be sent to your High School Principal.

3. If your credentials satisfy the entrance requirements of the School in which you desire to register, a Registration Permit will be sent to you, and upon this form will be noted the condition of your admission.

4. Along with the Registration Permit will be sent a letter of directions. This letter will contain information concerning dates of registration, location of offices of Dean and Advisers, preliminary steps in registration, etc. Read this letter carefully and bring it with you when you report for registration.

REGISTRATION

Registration in the School of Economics will be conducted Wednesday, Thursday, Friday, and Saturday, September 20-23 inclusive. Candidates are advised to register early during the period. Choice of sections in any course will be possible only on condition of early registration.

TUITION AND FEES

The annual rate of tuition in the School of Economics is \$212.50, payable in two installments, \$112.50 upon registration at the opening of the first semester and \$100 upon registration for the second semester. A fee of \$5.00 will be charged in addition to tuition for mimeographing and other supplies.

The tuition for the first semester entitles the students to admission to all athletic events and certain other activities under the jurisdiction of the Advisory Board of Student Activities.

Full tuition is charged all students registered for twelve semester credits or more. The tuition charge for less than this number is at the rate of \$7.00 a credit.

A total of \$840.00 for tuition must be paid before the degree is granted, even though the course may be completed in less than four years. Students entering with advanced standing are entitled to a proportionate adjustment.

A fee of \$5.00 is added to the tuition if registration is not completed within the dates specified.

A fee of \$5.00 is charged for each examination for advanced standing without regard to the number of credits involved. The same fee is charged for every re-examination.

A fee of \$10.00 for each diploma is due upon graduation. In The Graduate School an extra charge is made of the hood.

The foregoing figures do not include charges for books, instruments, etc.

REFUNDS

No refund of tuition will be allowed if a student withdraws from a course after the middle of the semester or term. Application for refund will be considered only when made at the time of withdrawal.

LIVING EXPENSES

Board and Room

The University, through its Housing Bureau, makes careful periodic inspections of rooms and living quarters available for University students. Only those rooms which meet the requirements as stipulated by the Housing Bureau, are listed and referred to students. The Housing Bureau is located in Room 1, State Hall, and all inquiries with reference to rooms and board should be sent to that address. While there is, of course, a large variation in prices dependent upon the locality in which rooms are situated, rates for rooms listed with the Bureau will in all instances be found to be reasonable. An estimate of living expenses based upon the experience of students during the last academic year would indicate the cost per week to be:

	Minimum	Average
Board	\$8.00	\$9.00-\$10.00
Room	3.50	4.50- 5.00

Student Employment

The University maintains an Employment Bureau for students and alumni. One of the functions of the Employment Bureau is to locate opportunities whereby worthy students are enabled to earn a portion of their expenses. Situated as the University is in the heart of a great city, the opportunities for employment are both numerous and varied, as a result of which ambitious students in the past have been unusually successful in earning extra money.

DEPARTMENT OF PHYSICAL EDUCATION

Every student in the undergraduate schools, upon entering the University is required to take a complete physical examination. This is made by the Department of Health and Physical Education during registration week and the following two weeks. Appointment for this examination is made at the time of registration. A record is kept of each case, together with a medical history, and the student is advised of any physical defects discovered and of ways and means for their correction. Subsequent physical examinations are made in cases requiring special attention. All candidates for athletic teams are carefully examined before being allowed to compete.

Physical education is required. The work must be taken during the freshman and sophomore years. Two 2-hour periods a week throughout the semester are required of all Freshmen and Sophomores. The two years' work necessary for graduation must include ability to pass the swimming test. In the case of those unable to swim, instruction in swimming may be substituted for work on the gymnasium floor, two swimming periods being regarded as the equivalent of one gymnasium period. Exemption from gymnasium classes and credit for Physical Education are allowed for participation in athletics, upon recommendation of the coach and approval of the Director of Physical Education and Athletics.

RESERVE OFFICERS' TRAINING CORPS

The University maintains three units of the Reserve Officers' Training Corps, namely: Infantry, Coast Artillery, and Motor Transport. These units were established under provision of acts of Congress for the purpose of furnishing men of education who will have sufficient training to act as officers in any army that the United States will have occasion to raise. The courses are divided into two 2-year periods. The first corresponds to the Freshmen and Sophomore years; the second to the Junior and Senior years. Each period, once entered upon, becomes a prerequisite for graduation. The first period, known as the basic course, is designed to train men to act as non-commissioned officers in any future emergency. The second course, known as the advanced course is designed to train men as officers.

In addition to the patriotic incentive, Congress has offered material inducements to students to take the course. The uniforms, equipment and textbooks are lent throughout the four years. The Government offers to students a money consideration known as commutation of rations, amounting to approximately \$300.00 in the two years. The only demand made upon the student besides his University hours is for six weeks in the vacation between the Junior and Senior years at the training camp. All his expenses at this camp, including transportation, are paid. Upon graduation the student may receive a commission in the Officers' Reserve Corps if recommended by his instructor.

The University, co-operating with the Government, gives, as additional

inducements, (a) University credits toward graduation and (b) Exemption from Physical Education, conditioned upon physical fitness. For further information concerning the R. O. T. C. apply to the Department of Military Science and Tactics.

STUDENT ORGANIZATIONS

The Economics' Association is an organization of the students of the School of Economics for the stimulation of social and school activities.

Beta Gamma Sigma, the national honorary men's commerce fraternity, recognizes by membership, those who attain the highest scholastic standing in the junior and senior classes.

Gamma Epsilon Pi, a national honorary women's commerce fraternity, performs a similar service for women students.

Alpha Kappa Psi and Delta Sigma Pi, national professional commercial fraternities, maintain chapters at the University of Pittsburgh.

In addition, the Management Club, the Foreign Trade Club, and Zeta Tau Pi (Finance Club) are devoted to the promotion of special study in the indicated fields.

LABORATORIES

The School of Economics maintains in Room 2 State Hall an accounting and statistical laboratory.

ADVISORS

On registration each student is assigned to an advisor who thereafter serves as personal counselor throughout the student's course.

CREDITS

All University courses are recorded in terms of "credits." A "credit" is given for eighteen hours of recitation, lecture, discussion, or other class exercise. Thus a course requiring two hours of recitation a week for one semester (about eighteen weeks) gives two credits. In the description of courses, the number of credits given for each course is stated.

HONORS

The highest one-eighth of the graduating class receives the distinction of graduating "With Honors." Of the number elected, the distinction of some may be raised to graduation "With High Honors" or "With Highest Honors" by vote of the faculty, but only after recommendation by a department of the unusual ability of the candidate and promise of future achievement in its field.

GENERAL HONORS

Beginning with the academic year 1922-23, the members of the junior class who have maintained a grade average of B or better in previous

scholastic work may be admitted to candidacy for "general honors." Candidates for "general honors", under the direction of members of the faculty, must, in addition to maintaining a high scholarship average in the courses required for the degree, complete with distinction a supplementary program of study, equivalent to approximately one-third the minimum of the degree requirement. Successful candidates will receive the distinction of graduating with "general honors."

GROUP CONFERENCES

During the academic year 1922-23 all juniors and special students in the School of Economics will be assigned readings in subjects related to but not a part of the curriculum. Students will meet members of the faculty periodically in small groups for informal discussion of the subject matter of the readings. The objects of this requirement are (a) to furnish a basis for co-ordinating the several courses of the students program, (b) to supplement the professional curriculum with the elements of liberal culture, (c) to diversify and broaden the mental interests of the student, and (d) to develop in the student self-expression in both written and spoken English. No University credit is given in this work.

Seniors will meet a similar requirement through registration in the Business Policy course.

DESCRIPTION OF COURSES

ACCOUNTING

71, 72. PRINCIPLES OF ACCOUNTING AND ACCOUNTING PRACTICE

1 & 2 Sem. 4 cr. ea.

This course considers the purpose and scope of accounting; the financial transaction and its relation to the various activities of a business enterprise; accounts as media for classifying transactions; factors of financial condition and operation; theory and method of account classification; significance and relation of the various accounts; the media for, and method of, recording financial transactions; the accounting system; collection; organization and presentation of financial data; financial statements; their classification, form, content, significance, interpretation and use as bases for administration. Laboratory work will parallel the discussion of the theory of accounting in the fundamental processes of accounting, such as accruals, closing entries, trial balances and the preparation of financial statements with the variations and peculiarities incident to sole proprietorship, co-partnership, corporations, consolidations, mergers, holding companies receivership and liquidations.

Assistant Professor Bennett.

73. INDUSTRIAL COSTS AND ACCOUNTING

1st Sem., 4 cr.

The design and installation of cost systems; benefits to be derived from accurate costs; purchase, use and storage of materials; the pay-

roll and methods of securing labor costs; types of cost system for various industries plan of wage payment; efficiency work and scientific management; depreciation; the factory burden, its determination and apportionment, including a study of scientific machine rates; inspection of cost systems in use and the literature of cost accounting. *Professor Reitell.*

74. ADVANCED INDUSTRIAL ACCOUNTING

2nd Sem. 4 cr.

Advanced study of factory accounting problems in plants open to personal observations. Practice in observation, analysis, originality and judgment through the assignment of problems requiring for solution a practicable system of accounts and accounting method, with provision for adequate operating reports and statistics. *Professor Reitell.*

91, 92. ACCOUNTING PROBLEMS

1 & 2 Sem., 2 cr

This course has a two-fold purpose; first, to teach generalization and develop ability to reason from a statement of facts without the books of account; second, to permit an intensive study of many of the variations in topics in accounting practice. The problems covered constitute a series complex in content and construction and varied in application. Auditing with practical work in actual audits, and devising systems for actual installation form a large part of the course.

Professor Reitell and Assistant Professor Bennett.

BUSINESS ORGANIZATION AND MANAGEMENT

71. BUSINESS ECONOMICS

1 Sem. 4 cr.

The application of economic principles to business affairs. Attention will be directed to problems of production and consumption rather than to those dealing with economic value and distribution. Among the topics treated are: fundamental concepts, property, government, contract, competition, association; development of machine industry; changes in the size of representative business units; speculative enterprise; increasing and diminishing returns applied to particular industries; elasticity of demand and of prices; industrial and commercial concentration; encroachments on private property; social and governmental control. *Professor Wright.*

72. BUSINESS ORGANIZATION AND CONTROL

2 Sem. 4 cr.

A survey of the principles and forms of organization as found in various branches of business, functions and interrelation of principles and subsidiary departments and the adaptation of different types of organization to particular industries. Consideration is given to the selection, qualifications and training of executives, methods of executive control and the operation of organization through various executive policies. *Professor Wright.*

73, 74. PUBLIC RELATIONS OF BUSINESS

1 & 2 Sem., 2 cr. ea.

Relation of government to business and industry. Development of

regulation in the United States. Legal, constitutional and political principles involved. *Professor Wright.*

91, 92. BUSINESS POLICY

1 & 2 Sem., 2 cr. ea.

Analysis and solution of a series of typical business problems from the point of view of the business executive. *Professor Wright and members of the staff.*

BUSINESS LAW

71, 72. LAW OF BUSINESS AGREEMENTS

1 & 2 Sem., 4 cr. ea.

The object of this course is to familiarize the student with the principles of law underlying ordinary business transactions. It includes contracts, their formation, operation, interpretation and discharge; agency, formation of the contract of agency, rights and obligation of principals, agents and third parties, termination of the relation; bailments, including contracts for pledging, hiring, and transporting personal property; sales and mortgages of personal property; leases, mortgages and sales of real estate; suretyship and guaranty; fire and life insurance contracts. *Professor Reed, Mr. McCrady.*

73. LAW OF BUSINESS ORGANIZATIONS

1st Sem., 4 cr.

A more intensive study of the law of partnerships and corporations than would be possible in a general course in business law. It includes the formation of partnerships; the liability of the members of defectively incorporated associations; the test of a partnership; the powers, rights and liabilities of partners; the rights and remedies of creditors; dissolution of partnerships; the distribution of partnership assets; limited partnerships; corporations, their formation, nature, and management; corporate powers; mode of contracting; rights and liabilities of stockholders; duties and liabilities of promoters and officers; dissolution and winding up of a corporate business. *Professor Reed.*

74. LAW OF COMMERCIAL PAPER

2nd Sem., 4 cr.

An intensive study of the law of negotiable instruments based on the negotiable instruments law of Pennsylvania. It includes the essentials of negotiable paper; a study of the contracts of the maker, acceptor, certifier, drawer, indorser, vendor, accommodator, and assurer; the rights of a holder in due course; the defenses to commercial paper; the payment and discharge of negotiable contracts. *Professor Reed.*

COMMERCE

71. PRINCIPLES OF MARKETING

1 & 2 Sem., 4 cr. ea.

The principal marketing methods and the work of different middlemen, brokers, wholesalers, auctions, produce exchanges and various types of retailers. Co-operative marketing. Trade associations. Some of the fundamental marketing policies such as a stock turnover, price policies, marketing analysis, etc. *Professor Converse.*

72. ADVANCED MARKETING POLICIES

2 Sem., 4 cr.

A more advanced and comprehensive study of marketing policies than is included in the Principles of Marketing (Commerce 101) Considers such policies as market analysis, price determination, advertising and publicity, credit policies, merchandising policies, purchasing polices, service and guarantee policies, etc. Prerequisite Commerce 71. *Professor Converse.*

74. SALESMANSHIP AND SALES MANAGEMENT

2 Sem., 4 cr.

The principles and practice of personal salesmanship. The principles of salesmanagement such as methods of employing, training, paying, and supervising salesmen; location of branch houses; assigning of quotas; managing sales conventions and sales contests; dealer aids, coordination of the work of the sales department; the credit department, and the advertising department; management of sales campaigns; etc. Prerequisite Commerce 71. *Professor Converse.*

75, 76. PRINCIPLES OF ADVERTISING

1 & 2 Sem., 2 cr. ea.

Analysis of the elements and factors which control human action in buying and selling. Place and function of advertising, study of advertising, planning, research and analysis, preparation of copy, selection of media and placing of copy, relations of advertiser, agency, and publisher; social and economic aspects *Assistant Professor MacQueen.*

77, 78. PRINCIPLES OF INSURANCE

1 & 2 Sem., 2 cr. ea.

A statement of the underlying principles upon which all forms of insurance are based. Relation of insurance to other economic agencies, insurance, principles underlying the making of the contract or policy, different types of insurance. *Mr. Howard.*

FINANCE**71, 72. BANKING**

1 & 2 Sem., 4 cr. ea.

The function and history of banking. The organization and administration of the various types of banking institutions. A study in detail of banking operations — loans and investments, deposits, clearing and collection, reserves, etc. The bond, trust, foreign, safe deposit, and other departments. A large part of the second semester will be devoted to the organization and operation of the Federal Reserve System. *Assistant Professor Jones.*

73, 74. CORPORATION FINANCE AND INVESTMENTS

1 & 2 Sem., 4 cr. ea.

This course outlines the problems of financing and reorganizing corporations, and also presents the principles which the investor should have in mind in purchasing corporate securities. *Professor Kidd.*

75, 76. BUSINESS FINANCE

1 & 2 Sem., 4 cr. ea.

A survey of the financial operations dealing with the establishment and maintenance of the average business enterprise. Among the topics

to which attention will be given are: starting a business, methods of securing fixed and working capital; financing purchases; credits and collections; price policies; distribution of earnings; methods of handling enterprises in financial difficulty. *Assistant Professor MacQueen.*

77. THE STOCK MARKET

1 Sem., 2 cr.

A study of the organization and operation of the stock exchange, with particular reference to the New York Stock Exchange. The business of the stock broker and his relations with his customers. *Assistant Professor Jones.*

78. BANKING PROBLEMS

2 Sem., 2 cr.

An advanced course in banking dealing with particular problems selected for intensive study. One of such subjects during the current year will be the proposed Pennsylvania banking code. *Assistant Professor Jones.*

FOREIGN TRADE

71, 72. PRINCIPLES AND METHODS OF FOREIGN TRADE *1 & 2 Sem., 4 cr. ea.*

Economic theory of international trade; significance of foreign trade, merchant marine, and port development; national policies affecting international commerce; export and import methods; export organization; governmental assistance.

Examination of the geographical principles, economic status and commercial prospects of the principal foreign countries of the world from the point of view of their resources, their demand for American products and the channels of trade. The principal countries are considered individually with reference to their commercial and industrial development, typical organization of industries, method of distribution, influence of transportation systems and organization of export trade. *Professor Kidd.*

INDUSTRIAL MANAGEMENT

71. INDUSTRIAL TECHNOLOGY

1 Sem., 4 cr.

A study of the history, location, manufacturing processes, competitive conditions and outstanding problems of the leading industries of the United States. Analysis of productive processes, and the influence of technological changes on the institutional framework of economic society. Problems of industrial technique, national resources and production for wide markets. *Professor Reitell.*

72. INDUSTRIAL ORGANIZATION AND MANAGEMENT

2 Sem., 4 cr.

A fundamental course in the principles of internal organization and management of industrial enterprise. It will include a discussion of the location of plants, layout and types of construction; materials, equipment, and power; planning and routing; statistics and accounting; scientific management; purchasing, traffic, credit and collection. *Professor Reitell.*

73. LABOR ORGANIZATION AND STANDARDS**1 Sem., 4 cr.**

The purpose of this course is to study the position of labor as a factor in production and distribution in modern industrial society. The major portion of the work will be concentrated on an examination of the structural and functional aspects of American trade unions and on their social, political and economic significance; on the traditional means of settling labor disputes,—the strike, the boycott, and lockout, mediation, conciliation and arbitration; on the present day reliance upon "labor laws"; on the shop committee and on the impartial chairmanship machinery. This course is prerequisite to the course in Personnel Administration. *Assistant Professor Gillman.*

74. PERSONNEL ADMINISTRATION**2 Sem., 2 cr.**

The organization, management and functions of employment departments; selection, training and placement of the workman; job analysis and wage setting; health, safety and sanitation; housing and transportation; workmen's cooperative and welfare systems. Only students who have had Labor Standards will be admitted to this course. *Assistant Professor Gillman.*

STATISTICS**71. INTRODUCTION TO STATISTICAL METHOD****1 Sem., 4 cr.**

In this course a study is made of the elementary principles of statistical investigation, presentation and interpretation. Prime consideration is given to an understanding of statistical units, the preparation and editing of schedules, the various types of average, and index numbers, and of the application of the theories of dispersion and correlation. *Assistant Professor Gillman.*

73, 74. BUSINESS STATISTICS**1 & 2 Sem., 2 cr. ea.**

In this course an effort is made to master the technique of statistical investigations underlying modern business research. The student will study population growths, migrations and the labor supply; the use of statistics in salesmanship and advertising; production statistics and the work of the "statistical office." *Assistant Professor Gillman.*

76. THE BUSINESS CYCLE**2 Sem., 4 cr.**

In this course the student will learn to measure and analyze the factors that interact in the formation of business trends, and in the forecasting of the business cycle. The course will be patterned on the work of W. C. Mitchell, H. L. Moore, W. M. Person and others. This course is open only to students of the second semester of the senior year. *Assistant Professor Gillman.*

TRANSPORTATION

71. RAILROAD TRANSPORTATION

1 Sem., 4 cr

History of transportation in the United States. The rise of motor truck and air transportation. Organization and management of the railroads. The freight, passenger, express, and mail services. Rate structures and the principles of rate making. Relation of the railroads to shippers. Public utility valuation. The regulation of the railroads by federal and state governments. The question of government ownership. The relation of the railroads to the inland water carriers. *Professor Converse.*

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